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ABSTRACT

A study designed to determine the existence of a significant relationship between vocational teacher technical competencies and occupational experience factors and to assess teachers' opinions regarding occupational experience, necessity of recency of occupational experience, and length of recency of occupational experience. Only teachers in programs with more than ten teachers in the service areas of vocational agriculture, business and office occupations, and home economics were included in the study. The teachers were mailed a survey instrument consisting of a demographic survey, an attitude scale, and a technical competence self-evaluation form. Some of the major findings follow: A relationship was found between occupational experience recency factors and technical competency; the relationship between total occupational experience and technical competencies varies between service areas; vocational teachers consider occupational experience recency important for program success and technical competence; quantity of occupational experience necessary and optimum for vocational teachers varies from one to five years, both between service areas and program areas; the necessity of updating occupational experience to maintain technical competence varies from service area to service area. (The various instruments used in the study are appended and comprise approximately half the document.) (Author/BM)

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ED145229

FINAL REPORT

Volume 2, Technical Report

# THE EFFECT OF VOCATIONAL INSTRUCTOR'S OCCUPATIONAL EXPERIENCE AND EXPERIENCE RECENCY ON INSTRUCTOR'S ATTITUDE AND PROFICIENCY

PROJECT NUMBER 75-04-02-010

Project Co-Directors

Dr. Glen Rask

Dr. Windol Wyatt

COLORADO STATE UNIVERSITY

DEPARTMENT OF VOCATIONAL EDUCATION

Fort Collins, Colorado

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COLORADO STATE BOARD

FOR COMMUNITY COLLEGES AND OCCUPATIONAL EDUCATION

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## Preface

The issue of occupational experience for vocational education instructors has been one of major concern since the beginning of Vocational Education. Even though a great deal has been written about the necessity of occupational experience, very little research has been conducted which addresses this issue and the questions inherent in it. Criteria for credentialing and recredentialing of vocational instructors as well as vocational teacher education requirements are such that research efforts toward a factual basis for requirements of occupational experience must be made.

Some of the questions that seem to be reoccurring regarding the issue of occupational experience are: Should occupational experience be required prior to teaching? How much occupational experience should be required? Is occupational experience better if recent? How important are quality factors in occupational experience? This research does not address all these questions regarding occupational experience in vocational education for Colorado; however, it does add to the information we have about occupational experience and provides additional facts upon which we can base decisions regarding occupational experience.

The project co-directors wish to acknowledge the valuable assistance provided by the staff of the State Board for Community Colleges and Occupational Education; Colorado vocational instructors in Agriculture, Business and Office, and Home Economics; staff at the Larimer County Vocational-Technical Center; Colorado State University Department of Vocational Education staff members, Dr. Irving Cross, Dr. Ramsey Groves,

Dr. Mary Helen Haas, Dr. Carilyn Krehbiel Norris, Dr. Albert Masterson; industry representatives in agriculture, home economics occupations and business and office occupations; and the Professional Development Advisory Committees of the State Board for Community Colleges and Occupational Education.

Special acknowledgement is given Dr. John Oades, who worked as a research assistant on the project and made a major contribution in gathering the data and Dr. Douglas Sjogren who provided major assistance in the statistical design and analysis of the data.

## INTRODUCTION

The broad issue of occupational experience for vocational instructors has been a concern not only in Colorado, but nationally since the beginning of vocational education. In Colorado a major criteria for vocational credentialing is occupational experience related to the area of teaching. This criteria in Colorado, as in most of the rest of the nation, has been based primarily on what has been considered sound vocational principles and tradition.

The occupational experience requirements in Colorado vary from one vocational service area to another with hour requirements ranging from 2,000 hours to 10,000 hours. Experience requirement for the Consumer and Homemaking program simply states, "Shall have had successful experience in the field to which the training is related and of sufficient duration to have developed the knowledge and skills required as determined by the State Board".

This study does not intend to address itself to all the concerns

surrounding occupational experience for vocational instructors. Specifically, answers are sought in this study to segments of the occupational experience concern dealing with amount, recency, and attitude toward occupational experience as related to technical (subject matter) competence in the major programs of the Vocational Agriculture, Business and Office, and Home Economics Service areas.

To clarify the intent of this study the following specific objectives were developed from the original proposal:

1. To determine if a relationship exists between "high ability" technical competencies of teachers in programs of Vocational Agriculture, Business and Office and Home Economics and their occupational experience.
2. To determine if Colorado teachers in Vocational Agriculture, Business and Office and Home Economics believe occupational experience is necessary for program success.
3. To determine the optimal length (number of hours) of occupational experience for teachers in the programs of the three service areas involved in the study.
4. To determine if Colorado vocational teachers in the service areas, included in the study, believe that recent occupational experience is necessary to maintain technical competence.
5. To determine how recent (in months) occupational experience should be to maintain technical competence.
6. To determine the attitude of Colorado vocational teachers toward the value of occupational experience.

The following assumptions are basic to proper use and interpretation of this study. It is assumed:

1. That a primary reason for requiring occupational experience for vocational credentialing is to better assure occupational competence of the teacher.
2. That a fixed amount of occupational experience will provide sufficient variety of practice so as to assure breadth in technical competence. That in meeting the hour requirement one has such a variety of related experience as to be broadly competent, rather than having had "one experience a thousand times".

Users of this study should further be mindful of the following limitations:

1. No attempt is made in this study at correlating occupational experience and competence as a teacher; rather correlations are drawn between occupational experience and technical competence in the related vocational area of teaching. No attempt was made at determining the instructor's ability to teach, but the instructor's ability to perform technical competencies that are taught in that vocational program.
2. No attempt was made to verify data returns of the respondents. Amounts of occupational experience completed and self evaluated technical competence responses were tabulated as reported, without verification.

## Delimitations

The study was conducted within the following perimeters:

1. The study is delimited to the vocational service areas of Vocational Agriculture, Business and Office Occupations, Home Economics.
2. The study is delimited to those programs within the service areas which, in Colorado, had sufficient number to provide an adequate sample. Specifically, Production Agriculture; Horticulture; Stenographic-Secretarial; General Clerical; Accounting-Computing; Data Processing; Child Care; Food Service; Consumer Homemaking.
3. The population sampled is delimited to Colorado credentialed teachers in the secondary vocational programs.

## ABSTRACT

The primary purpose of this study was to determine if a significant relationship exists between vocational teacher technical competencies and occupational experience factors. The study was further designed to determine teachers' opinions regarding occupational experience, opinions regarding necessity of recency of occupational experience and length of recency of occupational experience. A secondary purpose of this study was to gather demographic information and profile data relative to technical competence and occupational experience.

Participants in the study were selected on a random basis for programs which have more than seventy teachers in Colorado and on a total population

basis for those programs which have between seventy and ten teachers. Only programs with more than ten teachers in the service areas of Vocational Agriculture, Business and Office Occupations and Home Economics were included in the study.

Instrumentation for this study was accomplished through the development of a three part instrument for each program area. The survey instrument was composed of three sections: demographic, designed to gather respondent data concerning education completed, related occupational experience, and opinions concerning value and duration of occupational experience; teacher attitude scale, designed to provide an indication of respondent attitude toward the value of occupational experience; technical competence self-evaluation section, designed to allow the respondent to evaluate his ability to perform selected technical subject matter competencies.

Data was gathered utilizing a mailed survey preceeded by an introductory letter and two follow-ups. Return rates varied among service areas from 68.18% to 100%.

The Statistical Program for the Social Sciences (SPSS) was used to analyze all data gathered. Descriptive statistics were computed for all variables. Statistical tests used included Pearson product moment, multiple regression and one-way analysis of variance.

Six study questions were tested for each service area. Findings and results are reported by program and service area.

A summary of findings for the study includes:

1. In general, a relationship was found between occupational experience recency factors and technical competency.

2. Findings indicate that the relationship between total occupational experience and technical competencies varies between service areas.
3. Vocational teachers as a whole are of the opinion that occupational experience recency is important for program success and technical competence.
4. Quantity of occupational experience necessary and optimum for vocational teachers varies greatly, not only between service areas, but also between program areas. This varies from one to five years.
5. The necessity of updating occupational experience to maintain technical competence varies from service area to service area.
6. Attitudes toward the values of occupational experience are generally positive.

## METHODS

This section of the final report delineates the methods employed in designing the research, selection of participants, instrumentation, validation of the study, data collection and analysis of the data. Each of these steps in the methodology will be presented separately for clarity.

### Design of the Research

In designing the study, the project co-directors and the research assistant began with the research questions and identified variables which should be considered in dealing with the questions in a completely random design. Assistance in identification of the variables was provided not

only the literature review, but also by other experts in vocational education. The variables were classified as predictor variables (independent) and predicted variables (dependent) as follows:

Predictor Variables

1. Length of Occupational Experience (THRSEXP) - as reflected by the total hours of related occupational experience to date, including full time experience prior to teaching (FTPRIOR), full time since teaching (FTSINCE), and part time experience since start of teaching (PTSINCE).

   FTPRIOR + FTSINCE + PTSINCE = THRSEXP

2. Recency of occupational experience - as reflected by the number of months since last full time employment outside teaching (MOLASTFT) and the total hours occupational experience completed outside teaching during the last five years (EXP5YRS).
3. Ability to perform selected technical competencies (PRFLVL) - as reflected by response to a self-evaluation five level performance scale.

Predicted Variables

1. Competence in technical skills of vocational program area (TECHCOMP) - as reflected by a summation of responses indicating ability to perform selected technical competencies. PRFLVL 1 + PRFLVL 2 + . . . PRFLVLZ = TECHCOMP
2. Belief in necessity of occupational experience for program success (OPSUCCES) - as reflected by response on a ten point scale.

3. Belief in necessity of recent occupational experience to maintain technical competence (OPRECENT) - as reflected by response on a ten point opinion scale.
4. Attitude toward the value of occupational experience (ATTITUDE) - as reflected by response to selected items (ATSCAL) on a twenty-two item attitude scale. ATSCAL 1 + ATSCAL 2 + . . . ATSCAL 22 = ATTITUDE
5. Optimum years of occupational experience (OPYRS) - as reflected by free-choice number response.

The following procedures were formulated in the project design for completion of the study.

1. Review of related literature
2. Identification of technical competencies
3. Development of instruments
4. Pilot testing instruments
5. Collection of data
6. Treatment and analysis of data
7. Development of a final report

## Selection of Participants

Two methods of selecting participants were utilized depending upon the total number of teachers in the vocational service area. Service area programs with less than ten teachers in the state were not included in the study. In those service area programs which had less than seventy secondary vocational teachers, the entire population was used. (Horticulture, Data

Processing, Accounting-Computing, Child Care, Food Service) In those service area programs which had more than seventy secondary vocational teachers, each teacher was assigned a number and a random sample of seventy was drawn from the population. (Production Agriculture, General Clerical, Stenographic-Secretarial, Consumer Homemaking)

The 1975-76 Vocational Program - Personnel Directory provided by the State Board for Community Colleges and Occupational Education was the source used for participant selection. Table 1 provides details on program areas, number of teachers in the service area, number of participants selected and percentage of response from participants.

TABLE 1

| Program Area | Number of Teachers | Number in Sample | Number of Respondents | % Response |
|---|---|---|---|---|
| Production Agriculture | 98 | 98 | 76 | 77.55 |
| Horticulture | 12 | 12 | 11 | 91.66 |
| General Clerical | 277 | 70 | 59 | 84.29 |
| Stero-Secretarial | 84 | 70 | 49 | 70.00 |
| Accounting-Computing | 67 | 67 | 54 | 80.60 |
| Data Processing | 22 | 22 | 15 | 68.18 |
| Consumer Homemaking | 356 | 70 | 59 | 84.29 |
| Child Care | 12 | 12 | 10 | 83.33 |
| Food Service | 14 | 14 | 14 | 100.00 |

Instrumentation

For the purposes of this study it was determined that a three part instrument was necessary, encompassing, demographic information, and attitude scale, and self-evaluation of technical competence. (See appendix A for Instruments.) The procedure followed in development of each component and the final instrument was the same for each of the nine instruments. The procedure used was as follows:

Step 1. Development of a reaction form to be used as a beginning point for those who would be asked for input into the instrument.

Step 2. Industry and educator review of each component and instrument by industry experts, teachers, and teacher educators in the service area and of each program for which the instrument was developed.

Step 3. Compiling industry and educator input and developing pilot instruments from their input.

Step 4. Pilot testing instruments with sample groups similar to those who would be included in the study.

Step 5. Revision of pilot instruments and development of the final instrument. After pilot testing, tests of reliability were made, the instruments were finalized and color coded by program area.

The demographic part of all instruments was designed to obtain personal data on each respondent concerning teaching assignments, education completed, occupational experience, and opinions regarding occupational experience. The demographic part included sixteen questions and was two pages in length. Respondents were asked to answer each question and to write additional comments concerning their beliefs about occupational experience if they so desired. A number of respondents took the opportunity to respond by supporting or denying occupational experience as an important criteria of being a vocational teacher. (Appendix D)

The attitude scale was designed to provide and indication of the respondents' attitude toward the value of occupational experience. The scale consisted of 22 individual statements reflecting length, recency, relevancy and value of occupational experience.

The scale was developed by the project staff, using an instrument developed by Rothenberg as a pattern. It included a five point Likert type response scale.

The instrument was constructed such that an attitude score could be computed from a summation of responses. In validation of the instrument it was determined that only selected statements provided consistent strength of response. From a validation procedure with 15 members of the Larimer County Vocational-Technical Center staff, only 11 statements provided consistent strength of response. Strength was indicated by computed mean score of 2.0 or below and 4.0 or above (1.0 - 2.0 strongly disagree, 4.0 -5.0 strongly agree). After the first validation minor wording changes were made to clarify some statements. The instrument was then revalidated by 19 EPDA Graduate Fellows in the Vocational Education

Department at CSU. The second validation produced seven statements with consistent strength of response, six statements of which matched those indicated by the LCVTC validation. It was determined to use all seven EPDA validated statements in computation of respondent attitude score. The seven statements used were statements numbered 1, 7, 13, 14, 15, 17, and 18.

Responses on statements 14 and 15 (1.0 - 2.0, agree statements) were subjected to a recode procedure in determining their value in the final attitude score. This procedure was necessary to give equal value to "agree" and "disagree" statements in computation of the attitude score. The values were recoded such that a response of 5 would equal 1, 4 equal 2, 2 equal 4 and 1 equal 5.

The technical competence self-evaluation sections were designed to evaluate his or her subject matter competence. The lists of high ability technical competencies were developed by assembly of technical competencies in each program area from a variety of sources. The lists were then submitted to industry representatives for ranking by "importance in the field" and "degree of competence in the field" reflected by the skill. The highly important, high ability competencies were assembled in a list for reaction from educators and teacher educators in each respective service area or program area. As much as possible, state advisory committee members were used for both assessments. Items included in the final instrument were those that industry representatives and educators consistently ranked as indicators of high ability technical competencies.

After the first list of competencies was developed a five point scale of performance levels was added and respondents were instructed to circle

the number which most closely indicated their ability to perform that competency.

The length of the technical competency section was designed to be of adequate length and breadth to provide a good assessment, and yet not so long as to discourage the respondent. The instrument was designed such that a technical competency score (TECHCOMP) could be computed from a summation of the performance responses.

Table 2 provides a comparison of competencies identified and those selected by program area.

TABLE 2

COMPETENCY SELECTION

| Program Area | Competencies Reviewed | Competencies Selected as High Ability |
|---|---|---|
| Production Agriculture | 123 | 56 |
| Horticulture | 73 | 48 |
| General Clerical | 153 | 61 |
| Steno-Secretarial | 77 | 61 |
| Accounting-Computing | 92 | 62 |
| Data Processing | 56 | 46 |
| Consumer Homemaking | 118 | 66 |
| Child Care | 153 | 56 |
| Food Service | 81 | 48 |

## Validation of the Study

The principle technique utilized for validation in this study was expert review. The process of review began with a total project review by the members of the Colorado Professional Development Advisory Committee in September 1975. Input from this committee was instrumental in the project changes made in October 1975.

Project and instrument components which related to specific vocational service areas were reviewed by their respective advisory committees periodically. Input from service area advisory committees and industry experts was particularly important in development and review of instrumentation.

Final validation of instruments included in the study was accomplished by a review from the teacher education staff at C.S.U., vocational teachers at Larimer County Vo-Tech, and EPDA fellows and graduate students at C.S.U.

## Collection of Data

In collection of the data every effort was made to achieve a high return of the data gathering instruments. A letter of introduction was sent to each selected participant explaining the study and its purpose and importance. (Appendix E)

Within one week after the introductory letter was mailed, the instrument and a cover letter were sent to the participating teachers. The cover letter encouraged immediate attention to completion of the instrument.

Each instrument included a coded number identifying it for follow-up purposes. The number was placed in an inconspicuous place in hope the

respondent would not notice it, or be influenced by it.

Approximately ten days after the instrument was mailed a follow-up letter (Appendix E) was sent to those who had not returned the instrument. Approximately ten days after the first follow-up, a second follow-up letter (Appendix E) and second instrument was sent to the non-residents. The total elapsed time for persons from any single program area from first contact to final follow-up was less than one month.

The data for the entire study was gathered over a three month period. Vocational Agriculture programs were completed first, Home Economics second, and Business and Office occupations programs completed last. Response by program area is reported in Table 1, page

Analysis of Data

Data gathered was interpreted, placed on Fortran coding forms and keypunched on computer cards for analysis. A small amount of computation was necessary prior to coding, as all occupational experience responses were converted to an hour equivalent for compatibility in analysis.

Computer programming needs were minimized through use of a prepared program, the Statistical Program for the Social Sciences (SPSS). The SPSS program proved very adequate, with all necessary processing components and flexibility needed to process the data. Descriptive statistics were computed for all variables, and specific statistical tests were run as required to satisfy the objectives of this study and test the study questions. Analysis of the data was categorized into three sections:

1. Profiles
2. Relationships
3. Differences

Profiles

This section simply involved computing and tabling the data. Descriptive statistics provided by the FREQUENCIES technique of SPSS satisfied the needs of this section.

Relationships

Testing the research questions of this study involved determining the relationship between selected variables. The Pearson Product Moment technique and an extension of the technique, Multiple Regression, were used. An alpha level of .05 was used to determine the significance of results computed.

Differences

In order to satisfy all of the objectives of this study it was necessary to determine the differences in mean score on some variables. The Oneway Analysis of Variance technique was thus used to determine differences in experience level factors, and recency of occupational experience factors. Again the alpha level of .05 was used to determine the significance of computed results.

## FINDINGS AND RESULTS

To present the findings and results of this study in a manner which will be most useful to those who have interest in specific programs or vocational service areas, this section has been divided by vocational service area, study objectives, and vocational program area.

The writers have made an effort to present this section as completely as necessary and concisely as possible, therefore, some information has been deleted which seemed superfluous to the study.

### Vocational Agriculture

The Vocational Agriculture program areas of production agriculture and horticulture were of sufficient numbers in Colorado to be included in this study; that is, at least 10 secondary programs in each. Separate data gathering and analysis was made for each program area.

#### Production Agriculture Study Findings

Demographic Findings:

The following demographic information was found in this study as a result of seventy-six secondary production agriculture teachers responding to the survey. The seventy-six production agriculture teachers represent 77.55% of the secondary production agriculture teachers in the state of Colorado.

General demographic characteristics of production agriculture teachers are reported in Table 3.

Table 3

Demographic Characteristics of Production Agriculture Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 31.11 | 29.25 | 22-56 |
| Yrs. H.S. training in Vocational Agriculture | 2.47 | 3.04 | 0-4 |
| Yrs. formal education completed | 16.72 | 16.69 | 7-20 |
| Total years teaching | 8.18 | 4.93 | 1-41 |
| Total years teaching Vocational Agriculture | 7.79 | 4.79 | 1-38 |

Table 4 contains demographic information regarding the professional preparation of the group.

Table 4

Professional Preparation of Production Agriculture Teachers

| Variable | Response | | | | | |
|---|---|---|---|---|---|---|
| Highest degree | 68.4% | Bach. | 31.6% | Masters | 0% | PhD |
| Where degree completed | 76,3% | Colorado | 23.7% | Other states | | |
| Institution where completed | 78.9% | C.S.U. | 1.8% | Other Colo. | 19.3% | other state |

Table 5 contains demographic information regarding the occupational experience and recency of occupational experience for production agriculture teachers.

Table 5

Occupational Experience of Production Agriculture Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 8380.75 | 8015.00 | 0-48,096* |
| Hrs. full time experience since teaching | 569.12 | 43.42 | 0-5010** |
| Hrs. part time experience since teaching | 1033.11 | 224.5 | 0-9999*** |
| Hrs. full time last five years | 953.60 | 2.85 | 0-8016**** |
| Hrs. part time last five years | 647.05 | 250.00 | 0-5000 |
| Months since last full time experience | 78.48 | 33.5 | 3-331 |

*Some had teaching experience prior to Vocational Agriculture
**65.8% had no full time experience since teaching
***29.0% had no part time experience since teaching
****51.3% had no hours full time last five years

Technical Competence Findings:

Production agriculture teachers were asked to evaluate themselves as having high level, above average, average, low level, or cannot perform competency on a list of 56 high ability, industry formulated competencies. Scoring was from five for high ability to one for cannot perform.

In analysis of this data the mean competency score was 4.33, which

would indicate above average ability to perform the competency. The mean score for teachers' total competency was 242.66 (280 possible) and a standard deviation of 32.55.

Additional analysis was made regarding technical competence through use of the multiple regression technique. Technical competence score was the dependent variable and all others were independent variables.

In this analysis, two significant correlations were found. Technical competence is positively correlated with years of formal education (significance .015) and months since last full time occupational experience (significance .039).

Study Objectives With Findings On Each

Question one:

Does a relationship exist between high ability technical agriculture competencies and Colorado production agriculture teachers' occupational experience?

To test this question the Pearson Correlation was made between technical competency score and total hours occupational experience. A correlation coefficient of .120 was found which has a significance of .152 exceeding the .05 level established for significant findings in this study.

Question two:

Do Colorado production agriculture teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a Pearson Correlation between total hours occupational experience and opinion regarding

the necessity of occupational experience.

The survey question (number 13) asked, "In your opinion, how important is the instructor's related occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important. It was found that in the opinion of production agriculture teachers, occupational experience is very important to program success. Statistical findings are reported in Table 6.

In the Pearson Correlation made between total hours occupational experience (THRSEXP) and opinion of teachers regarding necessity of occupational experience for program success (OPSUCCES) a correlation coefficient of .036 was found which has a significance of .380 which exceeds the .05 level established for significant findings in this study.

Question three:

Do Colorado production agriculture teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required of teachers in your vocational service area?" (OPYRS). It was found that Colorado production agriculture teachers believe three years occupational experience is optimal. Statistical findings are reported in Table 6.

Question four:

Do Colorado production agriculture teachers believe <u>recent</u> occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that Colorado production agriculture teachers believe that recent occupational experience is important. Statistical findings are reported in Table 6.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believed a person should update.

It was found that Colorado production agriculture teachers believe occupational experience should be updated every three years. Statistical findings are reported in Table 6.

Table 6

Findings on Occupational Experience Opinion Questions

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 8.40 | 9.27 | 10.00 | 5.55 |
| 3 | 14 | OPYRS | 2.94 | 3.02 | 3.00 | 2.24 |
| 4 | 15 | OPRECENT | 7.57 | 8.05 | 10.00 | 6.17 |
| 5 | 16 | OPOFTEN | 2.97 | 2.88 | 5.00 | 8.53 |

Question six:

What is the attitude of Colorado production agriculture teachers toward the value of occupational experience?

This question was tested by determining the participant's score on the attitude scale items which had shown strength of response. (Items 1, 7, 13, 14, 15, 17, 18.)

The mean score of 26.36 indicates a positive attitude toward the value of occupational experience. The range of scores was 11-33 with a possible 35. The standard deviation was 4.28.

A further analysis of teachers' attitude was made as it relates to their occupational experience and technical competency, to determine if there was a significant correlation between attitude (ATTITUDE) and experience (THRSEXP), or between attitude (ATTITUDE) and technical competency (TECHCOMP).

The correlation coefficient between ATTITUDE and THRSEXP was .162, not significant at the .05 level. The correlation coefficient between ATTITUDE and TECHCOMP was -.069, also not significant at the .05 level.

Production Agriculture - Study Results

Findings in the production agriculture portion of this study indicate conclusive results on the following:

1. There is no significant correlation between total hours of occupational experience and teacher technical competency score. However, it was found that technical competence is significantly correlated to years of formal education and months since last full time occupational experience. In testing the relationship between occupational experience and technical competency no significant relationship was found. However, it must be considered that all participants have had a minimum of 6,000 hours of occupational experience prior to vocational agriculture teaching. Therefore there is no control group without occupational experience and the test becomes a comparison of quantities of occupational experience above the minimum.
2. Production agriculture teachers are of the opinion that occupational experience is necessary for both technical competence and program success.
3. Production agriculture teachers are of the opinion that three years of occupational experience is necessary and optimal prior to teaching.
4. Production agriculture teachers are of the opinion that recent experience is necessary to maintain technical competence. (For further information see Respondents' comments, Appendix D.)

5. Production agriculture teachers are of the opinion that experience should be updated every three to five years.
6. Production agriculture teachers have a positive attitude toward the value of occupational experience.
7. In testing the relationship between attitude regarding occupational experience and other variables, no significant relationships were found.

## Horticulture Study Findings

Demographic Findings:

The demographic information here reported for horticulture teachers in the state of Colorado is a result of eleven teachers responding. This represents 91.66% of the horticulture teachers in the state. General demographic characteristics of horticulture teachers is reported in Table 7.

Table 7

Demographic Characteristics of Horticulture Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 36.82 | 30.33 | 24-63 |
| Yrs. H.S. training in Vocational Horticulture | 1.00 | .18 | 0-4 |
| Yrs. formal education completed | 16.09 | 16.25 | 12-20 |
| Total years teaching | 8.55 | 3.38 | 1-33 |
| Total years vocational teaching | 6.55 | 3.25 | 1-33 |

Table 8 contains demographic information regarding the professional preparation of horticulture teachers.

Table 8

Professional Preparation of Horticulture Teachers

| Variable | Response | |
|---|---|---|
| Highest degree | 18.2% H.S.<br>45.5% B.S. | 27.3% M.S.<br>9.0% Other |
| Where degree completed | 54.5% Colo. | 45.5% Other |
| Institution where completed | 27.3% C.S.U. | 72.7% Other |

Table 9 contains demographic information regarding occupational experience and recency of occupational experience for horticulture teachers.

Table 9

Occupational Experience of Horticulture Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 12767.90 | 10855.00 | 0-38,076 |
| Hrs. full time experience since teaching | 501.00 | 69.58 | 0-1503* |
| Hrs. part time experience since teaching | 136.00 | 10.29 | 0-10000** |
| Hrs. full time last five years | 1244.90 | 375.75 | 0-4008*** |
| Hrs. part time last five years | 164.36 | 10.00 | 0-1000 |
| Months since last full time experience | 58.27 | 43.00 | 0-248 |

*54.5% had no full time experience since teaching
**63.6% had no part time experience since teaching
***45.5% had no hours full time last five years

Technical Competence Findings:

To determine a value for horticulture technical competence, teachers were asked to evaluate themselves on sixty-six high ability competencies. Teachers were instructed to indicate their ability to perform on each competency on a five point scale with 5 being high level, 4 above average, 3 average, 2 low level, and 1 cannot perform.

The mean technical competency score for teachers was 238.727 with a standard deviation of 50.287. The possible range was 66 to 330. The mean score for competencies was 3.617, which indicates that teachers believe they have average to above average ability to perform the technical competencies.

Additional analysis of technical competence was made through multiple regression analysis with TECHCOMP as the dependent variable and all other as independent variables. It was found that technical competence is significantly correlated with full time occupational experience prior to teaching.

Study Objectives With Findings On Each

Question one:

Does a relationship exist between high ability technical Horticulture competencies and Colorado horticulture teachers' occupational experience?

To test this question the Pearson Correlation was made between teachers' technical competency score and total hours occupational experience. A correlation coefficient of .578 was found which has a significance of .031 which is below the .05 level of significance established for this study.

Question two:

Do Colorado horticulture teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a Pearson Correlation between total hours occupational experience and opinion regarding necessity of occupational experience.

The survey question (number 13) asked, "In your opinion, how important is the instructor's related occupational experience to vocational program success?"(OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important. It was found that in the opinion of horticulture teachers, occupational experience is very important to program success. Statistical findings are reported in Table 10.

In the Pearson Correlation made between total hours occupational experience (THREXP) and opinion of teachers regarding necessity of occupational experience for program success (OPSUCCES) a correlation coefficient of .310 was found which has a significance of .177 which exceeds the .05 level of significance established for this study.

Question three:

Do Colorado horticulture teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required of teachers in your vocational service area?" (OPYRS). It was found that Colorado horticulture teachers believe three and one half

years occupational experience is optimal. Statistical findings are reported in Table 10.

Question four:

Do Colorado horticulture teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?"(OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that Colorado horticulture teachers believe that recent occupational experience is important. Statistical findings are reported in Table 10.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believed a person should update.

It was found that Colorado horticulture teachers believe occupational experience should be updated every four years. Statistical findings are reported in Table 10.

Table 10

Findings on Occupational Experience Opinion Questions

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 8.82 | 8.88 | 9.00 | .96 |
| 3 | 14 | OPYRS | 3.55 | 3.75 | 2.00 | 1.87 |
| 4 | 15 | OPRECENT | 6.46 | 6.25 | 3.00 | 5.87 |
| 5 | 16 | OPOFTEN | 3.73 | 4.60 | 5.00 | 4.42 |

Question six:

What is the attitude of Colorado horticulture teachers toward the value of occupational experience?

The question was tested by determining the participant's score on the attitude scale items which had shown strength of response. (Items 1, 7, 13, 14, 15, 17, 18.)

The mean score of 26.91 indicates a positive attitude toward the value of occupational experience. The range of scores was 24-32 with a possible of 35. The standard deviation was 3.30.

A further analysis of teachers' attitude was made as it relates to their occupational experience and technical competency, to determine if there was a significant correlation between attitude (ATTITUDE) and experience (THRSEXP), or between attitude (ATTITUDE) and technical competency (TECHCOMP).

The correlation coefficient between ATTITUDE and THRSEXP was .448 not significant at the .05 level. The correlation coefficient between ATTITUDE and TECHCOMP was -.323, also not significant at the .05 level.

Horticulture - Study Results

Findings in the horticulture portions of this study indicate conclusive results on the following:

1. Horticulture teachers are of the opinion that occupational experience is necessary for both the technical competence and program success.
2. There is a significant correlation between the total occupational experience of horticulture teachers and full time occupational experience prior to teaching and their technical competence.
3. Horticulture teachers are of the opinion that about three and one half years of occupational experience is necessary and optimal to teaching.
4. Horticulture teachers are of the opinion that recent occupational experience is necessary to maintain technical competence. (For further information, see Respondents' comments, Appendix D.)
5. Horticulture teachers are of the opinion that occupational experience should be updated every four to five years.
6. Horticulture teachers have a positive attitude toward the value of occupational experience.

In testing occupational experience and attitude with other variables, no significant findings were made. However, both indicated that additional study is warranted.

## Summary of Vocational Agriculture Results

The data and the analysis of the study indicates the following results for the service area of Vocational Agriculture.

1. Vocational agriculture teachers are of the opinion that occupational experience is important for program success and technical competence.
2. Vocational agriculture teachers are of the opinion that recency of experience is important to maintain technical competence.
3. Vocational agriculture teachers are of the opinion that occupational experience should be updated every four to five years.
4. Vocational agriculture teachers have a positive attitude towards occupational experience.
5. While no significant relationship was found between technical competence and total occupational experience for production agriculture teachers, it was found that technical competence is related to the amount of formal education and recency of occupational experience. That is, those who were more technically competent had more formal education and their occupational experiences were more recent.

   A significant relationship was found with horticulture teachers between technical competence and both total

occupational experience and full time occupational experience prior to teaching. Those who were most competent had more occupational experience and more occupational experience prior to teaching.

6. Production agriculture teachers believe three years occupational experience is necessary before teaching, while horticulture teachers believe that they need about three and one half years.

A summary of demographic findings for Vocational Agriculture is presented in Appendix F.

## Business and Office Occupations

The Business and Office occupations program areas of stenographic-secretarial, general clerical, accounting-computing, and data processing are of sufficient numbers in Colorado to be included in this study, that is, at least ten secondary programs exist in each area. Separate data gathering and anlysis was made for each program area.

## Stenographic-Secretarial Study Findings

Demographic Findings:

The following demographic information was found in this study as a result of forty-nine secondary teachers responding to the survey. The respondents represent seventy percent of the sample and fifty-eight percent of the population.

General demographic characteristics of the stenographic-secretarial teachers included in the study are reported in Table 11.

Table 11

Demographic Characteristics of Steno-Secretarial Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 35.16 | 34.00 | 24-60 |
| Yrs. H.S. training in vocational area | 1.47 | 1.53 | 0-4* |
| Yrs. formal training completed | 16.53 | 17.09 | 15-20 |
| Total years teaching | 9.59 | 7.75 | 1-30 |
| Total years teaching in vocational area | 6.04 | 5.20 | 1-15 |

*38.8% had none

Table 12 contains demographic information regarding the professional preparation of steno-secretarial teachers.

Table 12

Professional Preparation of Steno-Secretarial Teachers

| Variable | Response | | |
|---|---|---|---|
| Highest degree | 59.2% Bach. | 38.8% Masters | 2% PhD |
| Where degree completed | 73.5% Colo. | 26.5% Other state | |
| Institution where completed teacher education | 2.0% Adams St. | 6.1% C.S.U. | 4.1% C.U. |
| | 40.8% U.N.C. | 10.2% Western St. | |
| | 4.1% Other Colo. | 32.7% Other state | |

Table 13 contains demographic information regarding the occupational experience and recency of occupational experience for steno-secretarial teachers.

Table 13

Occupational Experience and Recency of Occupational Experience for Steno-Secretarial Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 6547.51 | 4063.67 | 0-6012 |
| Hrs. full time experience since teaching | 845.25 | 48.48 | 0-8183* |
| Hrs. part time experience since teaching | 230.33 | 1.58 | 0-2004** |
| Hrs. full time last five years | 1080.41 | 62.62 | 0-6513*** |
| Hrs. part time last five years | 206.63 | 3.17 | 0-2000**** |
| Months since last full time experience | 59.92 | 30.75 | 0-295 |

*63.3% had none
**61.2% had none
***57.1% had none
****61.2% had none

Technical Competence Findings:

Stenographic-secretarial program teachers were asked to evaluate themselves as having high level, above average, average, low level, or cannot perform competency on a list of 73 high ability, industry formulated competencies. Scoring was from 5 for high level to 1 for cannot perform.

Additional analysis of technical competence was made beyond the study question by the multiple regression analysis technique with TECHCOMP as the dependent variable and all other variables as independent variables.

In the analysis the independent variables of part time experience the last five years, high school vocational training, full time experience since teaching and teacher training institution were each significantly correlated (below .05 level) with technical competence.

In analysis of the data the mean score for respondents was 318.12 with a standard deviation of 33.96. The mean score for items was 4.26, which indicates above average performance.

Study Objectives With Findings On Each

Question one:

Does a relationship exist between high ability technical stenographic-secretarial competencies of Colorado stenographic-secretarial teachers and their occupational experience?

To test this question, the Pearson correlation was made between technical competency scores and total hours of occupational experience. A correlation coefficient of -.090 was found which had a significance of .269 exceeding the .05 level of significance established for this study.

Question two:

Do Colorado stenographic-secretarial teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a Pearson correlation between total hours occupational experience (THRSEXP) and opinion regarding the necessity of occupational experience (OPSUCCES).

The survey question (number 13) asked, "In your opinion, how important is the instructor's related occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important. It was found that in the opinion of stenographic-secretarial teachers, occupational experience is important to program success. Statistical findings are reported in Table 14.

In the Pearson correlation between THRSEXP and OPSUCCES a correlation coefficient of .020 was found which has a significance of .443 which exceeds the .05 level of significance established for the study.

Question three:

Do Colorado stenographic-secretarial teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required for teachers in your vocational service area?" (OPYRS).

It was found that Colorado stenographic-secretarial teachers are of the opinion that one year is optimal. Statistical findings are reported in Table 14.

Question four:

Do Colorado stenographic-secretarial teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that stenographic-secretarial teachers are of the opinion that recent occupational experience is of moderate importance. Statistical findings are reported in Table 14.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believed a person should update.

It was found that stenographic-secretarial teachers believe that occupational experience should be updated every four to five years. It should be noted that 32.7% believed experience should not need to be updated. Statistical findings are reported in Table 14.

Table 14

Findings on Occupational Experience Opinion Questions

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 7.06 | 7.23 | 10.00 | 7.89 |
| 3 | 14 | OPYRS | 1.25 | 1.21 | 1.00 | .48 |
| 4 | 15 | OPRECENT | 5.67 | 5.75 | 8.00 | 7.89 |
| 5 | 16 | OPOFTEN | 5.88 | 4.54 | 5.00 | 12.54* |

*0's eliminated

Question six:

What is the attitude of Colorado stenographic-secretarial teachers toward the value of occupational experience?

This question was tested by determining the participants' score on the attitude scale items which had shown strength of response. (Items 1, 7, 13, 14, 17, 18.)

The mean score of 21.22 indicates a neutral attitude toward the value of occupational experience. The range of scores was 8-32 and the standard deviation was 6.49. A further analysis of attitude was made by use of the multiple regression analysis using ATTITUDE as the dependent variable against all other variables.

Four significant correlations were found in this analysis. Opinion of recency, part time experience since teaching, years teaching and years vocational teaching were all significantly correlated with attitude.

Opinion regarding the importance of recency is positively correlated with ATTITUDE score. (r = .621 and significance below .01 level.)

Part time experience since teaching is negatively correlated with ATTITUDE score. ($r = -.189$ and significance .01.) Years vocational teaching experience is negatively correlated with ATTITUDE score. ($r = -.082$ and significance .017) Years teaching experience is negatively correlated with ATTITUDE score. ($r = -.214$ and significance .029)

Stenographic-Secretarial Study Results

Findings in the stenographic-secretarial portion of this study indicate conclusive results in the following:

1. No significant relationship was found between occupational experience and technical competence. It should be noted that no participant had less than 2,000 hours therefore, this analysis was between amounts of occupational experience and technical competence. It is further noted that significant relationships were found between technical competence and independent variables of part time experience the last five years, high school vocational training, full time experience since teaching, and teacher training instruction.
2. Stenographic-secretarial teachers are of the opinion that occupational experience is important to program success.
3. Stenographic-secretarial teachers are of the opinion that one year of occupational experience should be required for teachers in their vocational service area.
4. Stenographic-secretarial teachers are of the opinion that recency of occupational experience is of moderate importance.

5. Stenographic-secretarial teachers are of the opinion that experience should be updated every 4-5 years. It is noted that 32.7% of the teachers believe experience need not be updated.
6. Stenographic-secretarial teachers have a neutral attitude toward occupational experience. Those who believe occupational experience should be updated also have positive attitudes toward occupational experience. It is noted that there is a negative correlation between ATTITUDE and part time experience since teaching, years vocational teaching, and years teaching experience.

General Clerical Study Findings

Demographic Findings:

The following demographic information was found in this study as a result of fifty-nine secondary general clerical teachers responding to the survey. The fifty-nine teachers represent 84.29% of the sample and 21% of the population of general clerical teachers in Colorado.

General demographic characteristics of the teachers included in the study are reported in Table 15.

Table 15

Demographic Characteristics of General Clerical Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 38.19 | 36.38 | 23-72 |
| Yrs. H.S. training in vocational area | 1.61 | 1.53 | 0-5* |
| Yrs. formal education completed | 16.08 | 17.17 | 11-20 |
| Total years teaching | 12.42 | 11.12 | 2-39 |
| Total years teaching vocational area | 9.39 | 7.58 | 1-32 |

*25.4% had none

Table 16 contains demographic information regarding professional preparation of general clerical teachers.

Table 16

Professional Preparation of General Clerical Teachers

| Variable | Response | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Highest degree | 1.7% Assoc. | | 35.6% Bach. | | 61.0% Masters | | 1.7% N.R. | |
| Where completed | 71.2% Colo. | | 27.1% Other state | | 1.7% N.R. | | | |
| Institution where teacher education completed | 3.4% Adams St. | 10.2% C.S.U. | 5.1% C.U. | | | | | |
| | 23.7% U.N.C. | 5.1% U.S.C. | 3.4% Western St. | | | | | |
| | 6.8% other Colo. | | 42.4% Other states | | | | | |

Table 17 contains demographic information regarding the occupational experience and recency of occupational experience of general clerical teachers.

Table 17

Occupational Experience of General Clerical Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 6021.61 | 4008.40 | 0-22545 |
| Hrs. full time experience since teaching | 778.24 | 3.83 | 0-7014* |
| Hrs. part time experience since teaching | 439.29 | 1.81 | 0-4008** |
| Hrs. full time last five years | 477.98 | 3.57 | 0-6012*** |
| Hrs. part time last five years | 413.34 | 2.74 | 0-4008**** |
| Months since last full time experience | 98.54 | 58.00 | 0-425 |

*61% had none
**53% had none
***62.7% had none
****59% had none

Technical Competence Findings:

General clerical teachers were asked to evaluate themselves as having high level, above average, average, low level, or cannot perform competency on a list of 66 high ability, industry formulated competencies. Scoring was on a scale of 1-5 with 5 being high level and 1 being cannot perform.

In analysis of the data the mean score for respondents was 283.84 with a standard deviation of 35.48. The mean score for items was 4.30, indicating above average competency.

In analysis of technical competence (TECHCOMP) as the dependent variable and all others as independent variables utilizing the multiple regression technique no significant findings were identified.

Study Objectives With Findings On Each

Question one:

Does a relationship exist between teacher high ability competencies in the general clerical area and teacher occupational experience?

To test this question the Pearson correlation was made between technical competence score (TECHCOMP) and total hours of occupational experience (THRSEXP). A correlation coefficient of .156 was found which has a significance of .119 exceeding the .05 level established for this study.

Question two:

Do Colorado general clerical teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a Pearson correlation between total hour occupational experience (THRSEXP) and opinion

regarding the necessity of occupational experience (OPSUCCES).

The survey question (number 13) asked, "In your opinion, how important is the instructor's related occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important.

It was found that in the opinion of general clerical teachers occupational experience is of importance to vocational program success. Statistical findings are reported in Table 18.

In the Pearson correlation between THRSEXP and OPSUCCES a correlation coefficient of .276 was found with significance of .017 which is below the .05 level established for the study. The correlation indicates those with more experience have a higher opinion of the necessity of occupational experience.

Question three:

Do Colorado general clerical teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required of teachers in your vocational service area?" (OPYRS)

It was found that general clerical teachers believe one year of occupational experience is optimal. It should be noted that 23.7% believe no occupational experience should be required. Statistical findings are reported in Table 18.

Question four:

Do Colorado general clerical teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that Colorado general clerical teachers believe that recent occupational experience is of moderate importance. Statistical findings are reported in Table 18.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for and update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believe a person should update.

It was found that general clerical teachers believe occupational experience should be updated every four to five years. It is noted that 32.2% of the teachers do not believe experience needs to be updated. Statistical findings are reported in Table 18.

regarding the necessity of occupational experience (OPSUCCES).

The survey question (number 13) asked, "In your opinion, how important is the instructor's related occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important.

It was found that in the opinion of general clerical teachers occupational experience is of importance to vocational program success. Statistical findings are reported in Table 18.

In the Pearson correlation between THRSEXP and OPSUCCES a correlation coefficient of .276 was found with significance of .017 which is below the .05 level established for the study. The correlation indicates those with more experience have a higher opinion of the necessity of occupational experience.

Question three:

Do Colorado general clerical teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required of teachers in your vocational service area?" (OPYRS)

It was found that general clerical teachers believe one year of occupational experience is optimal. It should be noted that 23.7% believe no occupational experience should be required. Statistical findings are reported in Table 18.

Question four:

Do Colorado general clerical teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that Colorado general clerical teachers believe that recent occupational experience is of moderate importance. Statistical findings are reported in Table 18 .

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for and update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believe a person should update.

It was found that general clerical teachers believe occupational experience should be updated every four to five years. It is noted that 32.2% of the teachers do not believe experience needs to be updated. Statistical findings are reported in Table 18 .

Table 18

Findings on Occupational Experience Survey Question

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 6.29 | 6.43 | 8.00 | 7.55 |
| 3 | 14 | OPYRS | 1.25 | 1.47 | 1.00 | 1.09 |
| 4 | 15 | OPRECENT | 5.49 | 5.45 | 8.00 | 8.36 |
| 5 | 16 | OPOFTEN | 4.20 | 4.38 | 0.00 | 16.72 |

Question six:

What is the attitude of Colorado general clerical teachers toward the value of occupational experience?

This question was tested by determining the participants' score on the attitude scale items which had shown strength of response. (Items 1, 7, 13, 14, 15, 17, 18.)

The mean score was 20.23, standard deviation 6.95. The mean score for response was 2.89. These would indicate a neutral attitude toward occupational experience.

In further analysis utilizing the multiple regression technique with ATTITUDE as the dependent variable and all others as independent variables, the only significant relationship (.001 significance) was found with opinion regarding the importance of recency of experience.

General Clerical - Study Results

Findings in the general clerical portions of this study indicate conclusive results on the following:

1. No significant relationship was found between technical competence and total occupational experience.
2. General clerical teachers believe occupational experience is important for program success.
3. General clerical teachers are of the opinion that one year of full time occupational experience should be required for teachers in their service area.
4. General clerical teachers are of the opinion that recency of occupational experience is of moderate importance.
5. General clerical teachers are of the opinion that experience should be updated every four to five years. 32.2% of the teachers do not believe it is necessary to update experience.
6. General clerical teachers have a neutral attitude regarding necessity of occupational experience. This attitude is highly correlated with their opinion regarding importance of recency of occupational experience.

## Accounting and Computing - Study Findings

Demographic Findings:

The following demographic information was found in this study as a result of fifty-four secondary accounting and computing teachers in Colorado responding to the survey. The fifty-four teachers represent 80.6% of the sample and population in Colorado.

General demographic characteristics of accounting and computing teachers are reported in Table 19.

Table 19

Demographic Characteristics of Accounting-Computing Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 38.09 | 38.17 | 23-59 |
| Yrs. H.S. training in vocational area | 1.15 | .88 | 0-4* |
| Yrs. formal education completed | 16.76 | 17.18 | 12-20 |
| Total years teaching | 10.85 | 10.00 | 1-34 |
| Total years teaching in vocational area | 8.46 | 6.70 | 1-30 |

*44.4% had none

Table 20 contains demographic information regarding the professional preparation of accounting and computing teachers.

Table 20

Professional Preparation of Accounting and Computing Teachers

| Variable | Response | | | |
|---|---|---|---|---|
| Highest degree | 1.9% H.S. | 46.3% Bach. | 50% Masters | 1.9% PhD |
| Where degree completed | 70.4% Colo. | 25.9% other | 3.7% N.R. | |
| Institution where teacher education completed | 5.6% C.S.U.<br>1.9% U.S.C.<br>29.6% other state | 7.4% C.U.<br>11.1% Western | 29.6% U.N.C.<br>13.0% Other Colo.<br>1.9% N.R. | |

Table 21 contains demographic information regarding the occupational experience and recency of occupational experience for accounting and computing teachers.

Table 21

Occupational Experience of Accounting and Computing Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 7397.50 | 4008.20 | 0-48095 |
| Hrs. full time experience since teaching | 1085.43 | 1.48 | 0-6012* |
| Hrs. part time experience since teaching | 585.87 | 8.62 | 0-9999** |
| Hrs. full time experience in last five years | 949.43 | 49.12 | 0-8016*** |
| Hrs. part time experience in last five years | 342.04 | 6.00 | 0-4000**** |
| Months since last full time experience | 81.65 | 55.50 | 0-73 |

*57.4% had none
**54.0% had none
***63.0% had none
****55.6% had none

Technical Competence Findings:

Accounting and computing teachers were asked to evaluate themselves as having high level, above average, average, low level, or cannot perform competency on a list of 67 high ability, industry formulated competencies. Scoring was on a scale from 1-5 with five for high ability and one for cannot perform.

In analysis of the data the mean score for respondents was 255.61 with standard deviation of 74.59. The mean score for items was 3.81 which indicates teachers believe they can perform at average to above average level.

In analysis of technical competence (TECHCOMP) as the dependent variable and all others as independent variables, utilizing multiple regression two significant findings were identified.

TECHCOMP is significantly correlated to part time experience the last five years (significance .032) and part time experience since teaching (significance .026).

Study Objectives With Findings On Each

Question one:

Does a relationship exist between accounting and computing teachers' technical competence score and their occupational experience?

To test this question the Pearson correlation was made between technical competency scores and total hours occupational experience. A correlation coefficient of .234 was found which has a significance of .044, below the .05 level established for this study.

Question two:

Do Colorado accounting and computing teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a Pearson correlation between total hours occupational experience (THRSEXP) and opinion regarding necessity of occupational experience (OPSUCCES).

The survey question, (number 13) asked, "In your opinion, how important is the instructor's related occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important. It was found that in the opinion of accounting and computing teachers, occupational experience is of importance to program success. Statistical findings are reported in Table 22.

In the Pearson correlation between THRSEXP and OPSUCCES a correlation coefficient of .184 was found with significance of .091 which exceeds the .05 level established for this study.

Question three:

Do Colorado accounting and computing teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required of teachers in your vocational service area?" (OPYRS). It was found that accounting-computing teachers believe one year of occupational experience is optimal. Twenty-two percent of the teachers believe no occupational experience is necessary. Statistical findings are reported in Table 22.

Question four:

Do Colorado accounting and computing teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that accounting and computing teachers are of the opinion that recency of experience is of little importance. Statistical findings are reported in Table 22.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of related occupational experience?" (OPOFTEN). Respondents were asked to indicate in a blank space the number of years they believe a person should update.

It was found that half of the accounting and computing teachers are of the opinion that teachers should not return to update. The other fifty percent of the teachers believe they should return every six years. Statistical findings are reported in Table 22.

Table 22

Findings on Occupational Experience Opinion Question

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 6.06 | 6.50 | 8.00 | 8.92 |
| 3 | 14 | OPYRS | 1.30 | 1.10 | 1.00 | 1.42 |
| 4 | 15 | OPRECENT | 3.94 | 3.21 | 1.00 | 8.66 |
| 5 | 16 | OPOFTEN | 5.93 | 5.00 | 5.00 | 12.60* |

*Variable adjusted by eliminating 0 responses.

Question six:

What is the attitude of accounting and computing teachers toward the value of occupational experience?

This question was tested by determining the participant's score on the attitude scale items which had shown strength of response. (Items 1, 7, 14, 15, 17, 18 .)

The mean score of 19.26 for respondents indicates a negative attitude toward occupational experience. The range of scores was 7-31 and the standard deviation was 6.95.

Further analysis of ATTITUDE was made utilizing the multiple regression technique with ATTITUDE as the dependent variable and all other variables as independent. A significant relationship (.002) was found between ATTITUDE and opinion regarding the importance of recent experience.

Accounting and Computing - Study Results

Findings in the accounting and computing portion of this study indicate conclusive results on the following:

1. Accounting and computing teachers have average to above average competency level.
2. Technical competence of accounting and computing teachers is significantly correlated to their part time experience the last five years and part time experience since teaching.
3. Technical competence is significantly correlated to total occupational experience.
4. Accounting and computing teachers are of the opinion that occupational experience is important for program success.
5. Accounting and computing teachers are of the opinion that recency of occupational experience is of little importance. Fifty percent of the teachers are of the opinion that teachers do not need to return to industry for update.
6. Accounting and computing teachers have a negative attitude toward occupational experience.

Data Processing - Study Findings

Demographic Findings:

The following demographic information was found in this study as a result of fifteen secondary data processing teachers responding to the survey. The fifteen teachers represent 68.18% of the sample and population in Colorado.

General demographic characteristics of data processing teachers are reported in Table 23.

Table 23

Demographic Characteristics of Data Processing Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 38.07 | 35.00 | 24-61 |
| Yrs. H.S. training in vocational area | .67 | .182 | 0-4* |
| Yrs. Formal education completed | 17.00 | 17.13 | 12-21 |
| Total years training | 8.33 | 5.38 | 1-36 |
| Total years training in vocational area | 5.47 | 5.20 | 1-14 |

*73.3% had none

Table 24 contains demographic information regarding the professional preparation of secondary data processing teachers.

Table 24

Professional Preparation of Secondary Data Processing Teachers

| Variable | Response | | |
|---|---|---|---|
| Highest degree | 6.7% H.S. | 6.7% A.S. | 40% Bach. |
| | 40.0% Master | 6.7% other | |
| Where degree completed | 66.7% Colo. | 26.7% other state | 6.7% N.R. |
| Institution where teacher education completed | 6.7% Adams St. | 13.3% C.S.U. | 6.7% C.U. |
| | 20.0% U.N.C. | 6.7% U.S.C. | 13.3% other Colo. |
| | 26.7% other state | 6.7% N.R. | |

Table 25 contains demographic information regarding the occupational experience and recency of occupational experience for data processing teachers.

Table 25

Occupational Experience of Data Processing Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 9518.73 | 7515.00 | 0-30060 |
| Hrs. full time experience since teaching | 690.27 | 125.25 | 0-4008* |
| Hrs. part time experience since teaching | 757.33 | 30.00 | 0-5800** |
| Hrs. full time experience last five years | 1837.00 | 1002.00 | 0-6012*** |
| Hrs. part time experience last five years | 682.33 | 45.00 | 0-4100**** |
| Months since last full time experience | 37.47 | 27.00 | 0-153 |

*66.7% had none
**46.7% had none
***40.0% had none
****40.0% had none

Technical Competence Findings:

Data processing teachers were asked to evaluate themselves as having high level, above average, average, low level, or cannot perform competency on a list of 56 high ability industry formulated competencies. Scoring was on a scale from 1-5 with five being high ability and 1 being cannot perform.

The mean score for respondents was 189.6 with a standard deviation of 78.6. The mean score for items was 3.39 which indicates an overall ability to perform between average and above average.

A further analysis was made of technical competence through multiple regression analysis with technical competence as the dependent variable and all other variables as independent variables.

The independent variables of ATTITUDE and teacher training institution were significantly (below .05 level) correlated with teacher technical competence.

Study Objectives With Findings On Each

Question one:

Does a relationship exist between teachers' technical data processing competencies and teachers' occupational experience?

To test this question the Pearson correlation was made between technical competence scores and total hours occupational experience. A correlation coefficient of .249 was found which has a significance of .185 exceeding the .05 level of significance established for this study.

Question two:

Do Colorado data processing teachers believe occupational experience is necessary for program success?

The question was tested by a direct survey question and a Pearson correlation between total hours occupational experience and opinion regarding the necessity of occupational experience.

The survey question (number 13) asked, "In your opinion, how important is the instructor's related occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important.

It was found that in the opinion of data processing teachers, occupational experience is important to program success. Statistical findings are reported in Table 26.

In the Pearson correlation made between THRSEXP and OPSUCCES a correlation coefficient of .135 was found with significance of .316, exceeding the .05 level of significance established for this study.

Question three:

What do Colorado data processing teachers believe is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required of teachers in your service area?" (OPYRS).

It was found that data processing teachers believe two years occupational experience should be required. Statistical findings are reported in Table 26.

Question four:

Do Colorado data processing teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competencies in your vocational service area?" (OPRECENT). Respondents were asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that teachers believe recent experience is of importance in maintaining technical competence. Statistical findings are reported in Table 26.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believed a person should update.

It was found that teachers believe a person should update every four to five years. Twenty percent responded that no update period is necessary. Statistical findings are reported in Table 26.

Table 26

Findings On Occupational Experience Opinion Questions

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 7.73 | 8.13 | 8.00 | 5.78 |
| 3 | 14 | OPYRS | 2.80 | 2.00 | 2.00 | 13.03 |
| 4 | 15 | OPRECENT | 6.40 | 7.25 | 10.00 | 12.54 |
| 5 | 16 | OPOFTEN | 4.07 | 3.25 | 5.00 | 16.35 |

Question six:

What is the attitude of Colorado data processing teachers toward the value of occupational experience?

This question was tested by determining the participant's score on the attitude scale items which had shown strength of response. (Items 1, 7, 14, 15, 17, 18.)

The mean score of 24.4 indicates a positive attitude toward occupational experience. The range of score was 15-32 and standard deviation 8.34.

Further analysis of attitude was made utilizing the multiple regression technique with ATTITUDE as the dependent variable and all others as independent variables. In this analysis two variables were identified which have a significant correlation (.05 level) with ATTITUDE. The variables were technical competence (TECHCOMP) and opinion regarding the importance of recency (OPRECENT).

Data Processing - Study Results

Findings in the data processing portion of this study indicate conclusive results on the following:

1. Data processing teachers are of the opinion that their technical competence is average to above average.
2. Those that are more technically competent have more positive attitudes toward occupational experience.
3. Technical competence is significantly correlated to teacher training institution.
4. Technical competence is not significantly correlated to total occupational experience.
5. Data processing teachers are of the opinion that occupational experience is important for program success.
6. Data processing teachers are of the opinion that two years occupational experience should be required for their service area.
7. Data processing teachers are of the opinion that recent occupational experience is important to maintain technical competence.
8. Data processing teachers are of the opinion that related occupational experience should be updated every four to five years.
9. Data processing teachers have a positive attitude toward occupational experience.

10. Attitude toward occupational experience is significantly related to teachers' total occupational experience and their opinion regarding the importance of recency of occupational experience.

## Summary of Business and Office Occupations Results

The data and analysis of the study indicates the following results for the service area of Business and Office occupations.

It was clear on each study question and in the demographic information that data processing teachers differ markedly from teachers in stenographic-secretarial, general clerical, and accounting-computing. These differences are specified in each of the results statements.

1. Regarding the relationship of technical competence to occupational experience and other variables it was found that six significant relationships exist. In program areas of steno-secretarial and accounting-computing, part time experience the last five years and experience since teaching were significantly related to technical competence. In addition, amount of high school vocational education and teacher training institution were significantly related to technical competence for steno-secretarial teachers.

   In the area of data processing significant relationships were found between technical competence and the variables of teacher training institution and attitude toward occupational experience.

2. Business and office teachers in all four program areas are of the opinion that occupational experience is important. However, occupational experience is significantly more important to data processing teachers.

3. Teachers in steno-secretarial, general clerical, and accounting-computing are of the opinion that one year of occupational experience should be required. Data processing teachers are of the opinion that two years should be required for their area.
4. Regarding recency of occupational experience accounting-computing teachers are of the opinion that recency is of little importance. Steno-secretarial and general clerical teachers are of the opinion that recency is of moderate importance, and data processing teachers are of the opinion that recency is important to maintain technical competence.
5. Stenographic-secretarial teachers and accounting-computing teachers believe experience should be updated about every six years whereas general clerical teachers and data processing teachers are of the opinion that update should occur about every four years.
6. Stenographic-secretarial and general clerical teachers have a neutral attitude toward occupational experience. Accounting-computing teachers have a positive attitude and data processing teachers have a negative attitude toward occupational experience.

## HOME ECONOMICS

Three programs within the Home Economics service area have sufficient numbers in Colorado (ten or more programs) to be included in the study. The programs included are Consumer Home Economics, Child Care, and Food Service. Separate data gathering and analysis was done for each program.

### Consumer Home Economics

Demographic Findings:

The following demographic information was found as a result of fifty-nine secondary consumer home economics teachers responding to the survey. This response represents an 84.29% return from the seventy teachers drawn as a random sample from the 356 consumer home economics teachers in Colorado. The fifty-nine respondents represent 16.57% of the consumer home economics teachers.

General demographic characteristics of the consumer home economics teachers included in the study are reported in Table 27.

Table 27

Demographic Characteristics of Consumer Home Economics Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 34.64 | 30.75 | 22-63 |
| Yrs. training in Jr. High and H.S. home economics | 1.66 | 1.06 | 0-8* |
| Yrs. formal education completed | 17.14 | 16.93 | 15-22 |
| Total years teaching | 9.22 | 7.00 | 1-37 |
| Total yrs. teaching Consumer Home-Ec | 6.63 | 5.08 | 1-29 |

*25% have no Jr. High or H.S. Home Economics

Table 28 contains demographic information regarding the professional preparation of the group.

Table 28

Professional Preparation of Consumer Home Economics Teachers

| Variable | Response | | |
|---|---|---|---|
| Highest degree | 69.5% B.S. | 28.8% Masters | 1.7% PhD. |
| Where completed | 67.8% Colo. | 32.2% Other | |
| Institution where completed | 27.12% C.S.U.<br>22.03% U.N.C. | 1.70% C.U.<br>49.15% Other | |

Table 29 contains demographic information regarding the occupational experience for Consumer Home Economics teachers.

Table 29

Occupational Experience of Consumer Home Economics Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 4627.88 | 1461.25 | 0-6012* |
| Hrs. full time experience since teaching | 520.83 | 15.44 | 0-6012** |
| Hrs part time experience since teaching | 380.56 | .41 | 0-1835*** |
| Hrs. full time last five years | 804.42 | 37.03 | 0-6012**** |
| Hrs. part time last five years | 479.49 | .74 | 0-8100***** |
| Months since last full time experience | 50.46 | 8.67 | 0-500 |

*37.28% had none
**72.90% had none
***71.20% had none
****64.4% had none
*****57.6% had none

Technical Competence Findings:

Consumer home economics teachers were asked to evaluate themselves on 66 high ability competencies. Scoring of ability to perform the competencies was ranked on a scale of one to five with one being cannot perform, two low level, three average level, four above average level and five high level. The possible range was 66 to 330 and the mean score for teachers was 284.66 with a standard deviation of 29.03. The mean score per competency was 4.82 which indicates consumer home economics teachers believe they have a high level of ability to perform the competencies included.

Study Objectives With Findings on Each

Question one:

Does a relationship exist between high ability technical competencies in consumer home economics and Colorado consumer home economics teachers' occupational experience?

To test this question, the Pearson correlation was used between technical competency score and occupational experience. A correlation coefficient of .232 was found which has a significance of .039 which is below the .05 level established for this study. Therefore, there exists a significant correlation between the two variables.

In further analysis of technical competence utilizing the multiple regression technique with TECHCOMP as the dependent variable and all others as independent variables, a significant correlation (significance .046) was found between TECHCOMP and years of education.

Question two:

Do Colorado consumer home economics teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a Pearson correlation between total hours occupational experience and opinion regarding the necessity of occupational experience.

The survey question (number 13) asked, "In your opinion, how important is the instructor's related occupational experience (THRSEXP) to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important. It was found that in the opinion of consumer home economics teachers, occupational experience is moderately important for program success. Statistical findings are reported in Table 30.

The Pearson correlation between variables THRSEXP and OPSUCCES revealed a correlation coefficient of .052 with significance of .348. This exceeds the .05 level of significance established for the study. Therefore, no significant finding was made in the analysis.

Question three:

Do Colorado consumer home economics teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience should be required of teachers in your vocational service area?"(OPYRS). It was found that the consumer home economics teachers believe one year of occupational experience should be required. It is of interest to note that 35.6% of the teachers believe no

occupational experience should be required. Statistical findings are reported in Table 30.

Question four:

Do Colorado consumer home economics teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were asked to respond on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that consumer home economics teachers believe recency of occupational experience is of moderate importance in maintaining subject matter competence. Statistical findings are reported in Table 30.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of a related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believe a person should update.

It was found that consumer home economics teachers believe they should update occupational experience ever four to five years. Statistical findings are reported in Table 30.

Table 30

Findings On Occupational Experience Questions

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 5.95 | 6.19 | 5.00 | 6.57 |
| 3 | 14 | OPYRS | 1.15 | .815 | 1.00 | 6.79 |
| 4 | 15 | OPRECENT | 5.02 | 4.94 | 3.00 | 7.74 |
| 5 | 16 | OPOFTEN | 4.32 | 4.67 | 5.00 | 13.46 |

Question six:

What is the attitude of Colorado consumer home economics teachers toward the value of occupational experience?

This question was tested by determining the participants' score on the attitude scale items which showed strength of response. (Items 1, 7, 13, 14, 15, 17, 18.)

The mean score of 19.83 reflects a neutral attitude toward occupational experience. The standard deviation was 5.742 and the range was 7-35 with a possible range of 7-35.

A further analysis of teachers' attitude was made as it related to their occupational experience and technical competency, to determine if there exists a significant correlation between attitude (ATTITUDE) and total occupational experience (THRSEXP) or between attitude (ATTITUDE) and technical competency (TECHCOMP).

The multiple regression technique of analysis was used. A correlation coefficient of -.343 was found between ATTITUDE and THRSEXP which has a

significance of .068 exceeding the .05 level established for this study.

A correlation coefficient of -.197 was found between ATTITUDE and TECHCOMP which has a significance of .913 exceeding the .05 level established for this study.

While not directly a part of this study, three (3) additional significant correlations were found in analysis of the consumer home economics teacher data.

A correlation coefficient of -.112, significance .032, was found between the highest degree and ATTITUDE. This would indicate the higher the teacher's degree the more negative attitude regarding occupational experience.

A correlation coefficient of .140, significance .026, was found between the years of education and ATTITUDE. This would indicate the more education the more positive the teacher's attitude toward occupational experience.

Consumer Home Economics - Study Results

Findings in the consumer home economics portion of this study indicate conclusive results on the following:

1. There is a significant relationship between technical competence of consumer home economics teachers and their occupational experience. Those having more occupational experience are more technically competent.
2. Consumer home economics teachers are of the opinion that occupational experience is of moderate importance for program success and technical competence.

3. Consumer home economics teachers are of the opinion that recent occupational experience is of moderate importance to maintain technical competence.
4. Consumer home economics teachers are of the opinion that one year of occupational experience should be required for their service area.
5. Consumer home economics teachers are of the opinion that occupational experience should be updated every four to five years.
6. The attitude of consumer home economics teachers toward occupational experience is neutral.

## Child Care

Demographic Findings:

The following demographic information was found in this study as a result of ten child care teachers responding to the study. The ten teachers represent 83.33% of the secondary school child care teachers in the state of Colorado.

General demographic characteristics of child care teachers are reported in Table 31.

Table 31

Demographic Characteristics of Child Care Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 36.10 | 31.17 | 24-56 |
| Yrs. H.S. vocational training in occupational area | .60 | .33 | 0-2 |
| Yrs. formal education completed | 16.90 | 17.00 | 15-18 |
| Total years teaching | 8.70 | 6.50 | 0-14 |
| Total years teaching vocational service area | 3.90 | 3.83 | 0-8 |

Table 32 contains demographic information regarding the professional preparation of child care teachers.

Table 32

Professional Preparation of Child Care Teachers

| Variable | Response | | |
|---|---|---|---|
| Highest degree | 50% Bach. | 40% Masters | 10% other |
| State where degree completed | 50% Colo. | 50% other states | |
| Institution where teacher education completed | 10% C.S.U, | 10% U.N.C. | 20% other Colo.<br>60% other state |

Table 33 contains demographic information regarding the occupational experience and recency of occupational experience for child care teachers.

Table 33

Occupational Experience and Recency for Child Care Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 4291.90 | 3590.50 | 0-10020* |
| Hrs. full time experience since teaching | 2469.5 | 167.00 | 0-9999 |
| Hrs. part time experience since teaching | 71.7 | 5.67 | 0-500** |
| Hrs. full time experience last five years | 3376.8 | 2755.55 | 0-8016*** |
| Hrs. part time experience last five years | 39.8 | 6.0 | 0-180**** |
| Months since last full time experience | 30.8 | 9.0 | 0-175 |

*Some had teaching experience prior to vocational
**60% had none
***30% had none
****60% had none

Technical Competence Findings:

Child care teachers were asked to evaluate themselves as having high level, above average level, average level, low level, or cannot perform competency on a list of 69 high ability competencies. Scoring was from five for high level to one for cannot perform.

In analysis of the data the mean score for teachers was 286.80 (345 possible) and a standard deviation of 31.843. The mean score for responses was 4.16 which indicates above average level of competence.

Study Objectives With Findings on Each:

Question one:

Does a relationship exist between high ability child care technical competencies and Colorado child care teachers' occupational experience?

The Pearson correlation was used to test this question. A correlation was made between technical competence score and total hours occupational experience. (TECHCOMP and THRSEXP). A correlation coefficient of .214 was found which has a significance of .277 exceeding the .05 level of significance established for this study.

In further analysis of technical competence utilizing the multiple regression technique with TECHCOMP as the dependent variable and all others as dependent variables significant correlations (below .05) were found between TECHCOMP and part time experience since teaching and total years education.

Question two:

Do Colorado secondary child care teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a Pearson correlation between total hours occupational experience and opinion regarding the necessity of occupational experience.

The survey question (number 13) asked, "In your opinion, how important is the instructor's occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important. It was found that in the opinion of child care teachers, occupational experience is very important to program success. Statistical findings are reported in Table 34.

It was found in the Pearson correlation between THRSEXP and OPSUCCES that a correlation coefficient of .214 existed which has a significance of .277 exceeding the .05 level established for significance in this study.

Question three:

What do Colorado secondary child care teachers believe is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience should be required of teachers in your vocational service area?" (OPYRS). It was found that secondary child care teachers believe two years experience should be required. Statistical findings are reported in Table 34.

Question four:

Do Colorado secondary child care teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that secondary child care teachers believe that recent occupational experience is very important. Statistical findings are reported in Table 34.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believe a person should update.

It was found that secondary child care teachers believe occupational experience should be updated every three to five years. Statistical findings are reported in Table 34.

Table 34

Findings on Occupational Experience Questions

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCCES | 9.40 | 9.67 | 10.00 | .71 |
| 3 | 14 | OPYRS | 2.50 | 2.17 | 2.00 | 2.28 |
| 4 | 15 | OPRECENT | 8.50 | 8.17 | 10.00 | 1.83 |
| 5 | 16 | OPOFTEN | 3.80 | 4.00 | 5.00 | 3.73 |

Question six:

What is the attitude of Colorado child care teachers toward the value of occupational experience?

This question was tested by determining the participant's score on the attitude items which had shown strength of response. (Items 1, 7, 13, 14, 17, 18.)

The mean score of 28.20 indicates a positive attitude toward the value of occupational experience. The standard deviation was 3.048.

A further analysis of teachers' attitude was made as it relates to their occupational experience and technical competence score. The analysis was made by using the Pearson correlation between ATTITUDE and THRSEXP, and between ATTITUDE and TECHCOMP.

A correlation coefficient between ATTITUDE and THRSEXP of .057 was found which exceeds the .05 level of significance.

The correlation coefficient between ATTITUDE and TECHCOMP was -.388 with significance of .134 exceeding the .05 level set for this study.

Child Care - Study Results:

Findings in the child care portion of this study indicate conclusive results on the following:

1. Child care teachers' technical competence is not significantly correlated to total occupational experience; however, technical competence is significantly correlated with part time experience since teaching.
2. Child care teachers are of the opinion that occupational experience is very important for both technical competence and program success.
3. Child care teachers are of the opinion that two years occupational experience is necessary and optimal prior to teaching.
4. Child care teachers are of the opinion that recent occupational experience is very important to maintain technical competence.
5. Child care teachers are of the opinion that occupational experience should be updated every three to five years.
6. Child care teachers have a positive attitude toward the value of occupational experience.

## Food Service

Demographic Findings:

The following findings are as a result of 14 secondary food service teachers (100% of the population) responding to the survey. The general demographic characteristics of this population are reported in Table 35.

Table 35

Demographic Characteristics of Secondary Food Service Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Age | 37.29 | 34.5 | 26-53 |
| Yrs. H.S. training in vocational area | .57 | .2 | 0-3* |
| Yrs. formal education completed | 15.21 | 15.5 | 12-18 |
| Total years teaching | 6.29 | 3.17 | 0-30 |
| Total years teaching in vocational area | 3.21 | 2.50 | 0-10 |

*71.4% had none

Table 36 contains demographic information regarding the professional preparation of Food Service Teachers.

Table 36

Professional Preparation of Food Service Teachers

| Variable | Response |
|---|---|
| Highest degree | 28.6% H.S. 14.3% M.S. 14.3% A.S. 42.9% B.S. |
| Where degree completed | 50% Colorado 50% other |
| Institution where completed | 35.7% C.S.U. 7.1% C.U. 28.6% other state |

Table 37 contains demographic information regarding the occupational experience and recency of occupational experience for food service teachers.

Table 37

Occupational Experience of Food Service Teachers

| Variable | Mean | Median | Range |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 16700.00 | 17702.00 | 2505-40080 |
| Hrs. full time experience since teaching | 1765.43 | 250.00 | 0-7181* |
| Hrs. part time experience since teaching | 1013.50 | 15.00 | 0-9999** |
| Hrs. full time experience last five years | 2879.07 | 751.50 | 0-9018*** |
| Hrs. part time experience last five years | 1027.07 | 15.00 | 0-9999**** |
| Months since last full time experience | 25.29 | 19.00 | 0-75 |

*50% had none
**50% had none
***42.9% had none
****50% had none

Technical Competence Findings:

Food service teachers were asked to evaluate themselves as having high level, above average, average, low level, or cannot perform competency on a list of 62 high ability, industry formulated competencies. Scoring was from five for high level to one for cannot perform. In analysis of the data the mean score was 279.00 (310 possible) with a standard deviation of 24.785. The mean score for responses was 4.5 . Interpreted the mean

scores indicate that food service teachers believe they have a high level ability in those competencies of their occupational area.

Study Objectives With Findings on Each:

Question one:

Does a relationship exist between high ability technical competencies and Colorado food service teachers' occupational experience?

To test this question the Pearson correlation was made between technical competence scores and total hours occupational experience. A correlation coefficient of .095 was found which has a significance of .373 exceeding the .05 level of significance established for this study.

Question two:

Do Colorado food service teachers believe occupational experience is necessary for program success?

This question was tested by a direct survey question and a test utilizing Pearson correlation between total hours occupational experience and teachers' opinion regarding the necessity of occupational experience. The survey question (number 13) asked, "In your opinion, how important is the instruction related occupational experience to vocational program success?" (OPSUCCES). Respondents were asked to indicate their opinion on a scale from 1-10 with 1 being not important and 10 being very important. It was found that in the opinion of food service teachers occupational experience was very important. Statistical findings are reported in Table 38.

In the Pearson correlation between THRSEXP and OPSUCCES a correlation coefficient of .187 was found with a significance level of .261 which exceeds the .05 level of significance established for this study.

Question three:

Do Colorado food service teachers believe there is an optimal length of occupational experience?

The survey question (number 14) asked, "In your opinion, how many years of full time occupational experience related to the area of instruction should be required of teachers in your vocational service area?" (OPYRS). Teachers were instructed to respond by entering the number of years in a blank provided. It was found that Colorado food service teachers believe three and one half years occupational experience is optimal. Statistical findings are reported in Table 38.

Question four:

Do Colorado food service teachers believe recent occupational experience is necessary to maintain technical competence?

The survey question (number 15) asked, "In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area?" (OPRECENT). Respondents were again asked to respond by indicating their opinion on a scale of 1-10 with 1 being not important and 10 being very important.

It was found that Colorado food service teachers believe that recent occupational experience is important. Statistical findings are reported in Table 38.

Question five:

How recent should occupational experience be to maintain technical competence?

The survey question (number 16) asked, "In your opinion, how often should a vocational instructor return to industry for update of related occupational experience?" (OPOFTEN). Again respondents were asked to indicate in a blank space the number of years they believe a person should update.

It was found that Colorado food service teachers believe occupational experience should be updated every three and one half to five years. Statistical findings are reported in Table 38.

Table 38

Findings on Occupational Experience Questions

| Study Ques. Number | Survey Ques. Number | Variable Name | Mean | Median | Mode | Variance |
|---|---|---|---|---|---|---|
| 2 | 13 | OPSUCESS | 9.07 | 9.80 | 10.00 | 2.69 |
| 3 | 14 | OPYRS | 3.50 | 3.50 | 5.00 | 4.27 |
| 4 | 15 | OPRECENT | 6.14 | 6.50 | 6.00 | 10.75 |
| 5 | 16 | OPOFTEN | 3.50 | 3.50 | 5.00 | 6.58 |

Question six:

What is the attitude of Colorado food service teachers toward the value of occupational experience?

This question was tested by determining the participants' score on the attitude scale items which had shown strength of response. (Items 1,

7, 13, 14, 15, 17, 18.)

The mean score of 26.14 indicates a positive attitude toward the value of occupational experience. The range of scores was 20-35 with a possible range of 7-35. The standard deviation was 3.78.

A further analysis of teachers' attitudes was made as it relates to their occupational experience and technical competency, to determine if there exists a significant correlation between attitude (ATTITUDE) and experience (THRSEXP), or between attitude (ATTITUDE) and technical competence scores (TECHCOMP).

The correlation coefficient between ATTITUDE and THRSEXP was -.352, not significant at the .05 level. The correlation coefficient between ATTITUDE and TECHCOMP was .299, not significant at the .05 level.

Food Service - Study Results:

Findings in the food service portion of this study indicate conclusive results on the following:

1. No significant correlation was found between occupational experience and technical competence in food service teachers. It should be considered that this comparison does not include teachers with less than the minimum occupational experience required for teaching in the food service program.
2. Food service teachers are of the opinion that occupational experience is very important for program success and their technical competence.
3. Food service teachers are of the opinion that three

and one-half years occupational experience is optimal and should be required for their vocational service area.

4. Food service teachers are of the opinion that recent occupational experience is important in maintaining technical competence.
5. Food service teachers are of the opinion that occupational experience should be updated every three and one-half to five years.
6. Food service teachers have a positive attitude toward occupational experience which is not necessarily related to any other variable.

## Summary of Home Economics Service Area Findings

In compiling findings in the home economics service area, it became apparent that teachers in consumer home economics programs differ markedly from those in child care and food service. The differences were visible in demographic characteristics as well as in response to study questions. This summary includes findings for the home economics service area, however, differences found between program areas are delineated.

1. Technical competence is significantly related to total occupational experience in only the consumer home economics area. In the areas of consumer home economics and child care years of education is significantly related to technical competence. Also in the program area of child care, a significant relationship was found between part time occupational experience since teaching and technical competence.
2. Child care and food service teachers are of the opinion that occupational experience is far more important for program success than are consumer home economics teachers. However, they all are of the opinion that occupational experience is important.
3. A great variation in years of occupational experience teachers perceive they need, was found between program areas. Consumer home economics teachers said one year is necessary, child care teachers perceived they needed two and one-half years and food service

teachers replied three and one-half years.

4. Regarding the importance of recency to maintaining technical competence consumer home economics teachers and food service teachers were of the opinion that recency is of moderate importance, whereas, child care teachers are of the opinion that recency is important.
5. In response to how often occupational experience should be updated, consumer home economics teachers are of the opinion that update does not need to be as often as the other two program areas.
6. One of the greatest differences found between program areas in home economics was in attitude toward occupational experience. Both child care and food service teachers have a positive attitude while the attitude of consumer home economics teachers is neutral.

## SUMMARY AND CONCLUSIONS

Service area summaries are located at the end of service area findings and results found as follows:

Vocational Agriculture - page

Business and Office Occupations - page

Home Economics - page

1. In general, a relationship was found between occupational experience recency factors and technical competency.
2. Findings indicate that the relationship between total occupational experience and technical competencies varies between service areas.
3. Vocational teachers as a whole are of the opinion that occupational experience and occupational experience recency is important for program success and technical competence.
4. Quantity of occupational experience necessary and optimum for vocational teachers varies greatly not only between service areas but also between program areas. This varies from one to five years.
5. The necessity of updating occupational experience to maintain technical competence varies from service area to service area both in terms of importance and length of time between updating.
6. Attitudes toward the values of occupational experience are generally positive.

## RECOMMENDATIONS

1. The findings indicate that the teacher education agency should provide for verification of occupational experience and occupational recency prior to teaching.
2. It is apparent that occupational experience and occupational experience recency is related to technical competence. Therefore, it is recommended that a review of occupational experience requirements and occupational experience recency requirements be undertaken to insure this recency is considered in teacher preparation in credentialing.
3. It is recommended that occupational experience recency standards be established for vocational credentialing based upon program areas.
4. The length of occupational experience needed varies greatly and therefore it is recommended that consideration of occupational experience requirements be made on a program area basis.
5. The importance of recent occupational experience to maintain technical competence indicates that a means should be developed providing the opportunity for vocational teachers to return to industry for updating.
6. Findings indicate that the teacher education agency should provide for verification of occupational experience and recency based upon standards prior to teacher credentialing.

## RECOMMENDATIONS FOR FURTHER STUDY

1. Quality of occupational experience was not addressed in this study. However, it has become apparent that additional study is needed regarding this aspect of occupational experience.
2. Source of technical competence was addressed in Dr. John Oades' research in Vocational Agriculture. It is recommended that because of the relationship between source of technical competence and occupational experience, additional study needs to be made including these factors for other service areas.
3. Based upon the findings of this study, it is recommended that the importance of occupational experience in the program areas, be stressed in the preparation of vocational teachers.
4. It is recommended that this study or a study similar to this be conducted in the service areas of Vocational Education not included in this study to assist in determining occupational experience needs and a basis for credentialing.
5. It is recommended that this study be repeated with sufficient resources so that more objectvie measures of technical competence can be made and indepth review of occupational experience completed can be conducted.

APPENDICES

APPENDIX A

Study Instruments

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number):

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools_____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
Agricultural Production Occupations

This is the third and final part of a three part instrument. Listed below are a number of skills used in Production Agriculture Occupations. Read each skill statement carefully, and in the left hand columns, indicate your ability to perform that skill, according to the following scale:

1 - Cannot Perform -- Unable to perform this skill.
2 - Low Level -- Can perform, but only at a moderate level.
3 - Average Level -- Can perform at an average level.
4 - Above Average Level -- Can perform at a better than average level.
5 - High Level -- Highly competent in performing this skill.

In the right hand columns, indicate that single primary source from which you gained each skill, using the following code:

1 - On-Farm Experience -- Gained this skill primarily from farm or ranch experience prior to teaching.
2 - Ag-Related, Off-Farm Experience -- Gained this skill primarily from experience in ag-related business prior to teaching.
3 - Part-Time Farming While Teaching -- Gained this skill primarily from part-time farming while teaching.
4 - Preservice Teacher Preparation -- Gained this skill primarily through my teacher preparation program, prior to teaching.
5 - Inservice Teacher Preparation -- Gained this skill primarily through workshops, short courses, etc., since I began teaching.
6 - Voc Ag Teaching Experience -- Gained this skill primarily through teaching vocational agriculture.
7 - Other -- Gained this skill primarily from sources other than those listed above.

| Performance Level (1 Cannot, 2 Low Level, 3 Average, 4 Above Avg., 5 High Level) | | Skills (CIRCLE only ONE performance number and ONE source number per skill.) | Source (1 On-Farm, 2 Ag-Related, 3 Part-Time, 4 Preservice, 5 Inservice, 6 Vo Ag Teach., 7 Other) |
|---|---|---|---|
| 1 2 3 4 5 | 1. | Safely operate a tractor under various loads in both field and road conditions. | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 2. | Determine the nutrient requirements of various types of livestock found in the community | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 3. | Make decisions concerning use of fertilizers and soil amendments based upon results of soil and/or foliage tests. | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 4. | Plan a soil improvement program for a specific crop using various materials purchased from local sources | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 5. | Store various fuels so as to maintain purity and safety. | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 6. | Prepare a budget for common farm enterprises | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 7. | Develop maintenance schedules for common farm equipment using service manual | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 8. | Plan a livestock improvement program for a type of livestock in the community; specify breed, schedules for breeding, sire-dam ratio, culling program indicating standards. | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 9. | Identify nutrient deficiency signs in crops. | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 10. | Properly use parliamentary procedure to participate in making a decision through use of motions and discussion | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 11. | Interpret market reports in newspaper and official reporting services | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 12. | Select farm equipment on the basis of needs, price, and available service. | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 13. | Analyze production records to determine if management practices were profitable. | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 | 14. | Participate in civic affairs as an informed member of the community. | 1 2 3 4 5 6 7 |

Performance Level: 1 Cannot, 2 Low Level, 3 Average, 4 Above Avg., 5 High Level

Source: 1 On-Farm, 2 Ag-Related, 3 Part-Time, 4 Preservice, 5 Inservice, 6 Vo Ag Teach., 7 Other

CIRCLE only ONE performance number and ONE source number per skill.

| Performance | | Skills | Source |
|---|---|---|---|
| | 15. | Establish and maintain an accurate record system for: | |
| 1 2 3 4 5 – | | a. production records | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | | b. breeding records | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | | c. machinery maintenance records | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | | d. tax records | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 16. | Use a chart for determining gestation and heat periods for farm animals | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 17. | Identify forms of credit and possible lending agencies available to the farmer | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 18. | Carry out a maintenance program on farm implements in a safe and workmanlike manner | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 19. | Recondition and return to proper working order common farm implements | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 20. | Calculate application rates of fertilizer for a specific crop | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 21. | Select livestock, in accordance with breeding and marketing standards | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 22. | Demonstrate the proper technique in using the oxyacetylene equipment in cutting, brazing and mild steel welding | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 23. | Recognize and treat parasite infestations in livestock | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 24. | Compute the cost of fertilizing a crop using various materials purchased from local sources | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 25. | Identify common noxious weeds in the community | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 26. | Properly reconcile a bank statement | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 27. | Plan and conduct a winterizing program for farm equipment | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 28. | Compute and compare the interest rates charged by various merchants and lending institutions in the community | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 29. | Read labels and analyze fertilizers on the market | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 30. | Analyze management practices for possible improvements to increase profits | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 31. | Determine when a soil is ready to till | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 32. | Present and expand personal views logically and concisely to individuals or groups | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 33. | Design a program to promote good health and safety of farm animals | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 34. | Determine correct applications and safety measures for a weed control program | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 35. | Calibrate or adjust common farm implements | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | 36. | Apply the decision-making process, using established budgeting criteria to make management decisions | 1 2 3 4 5 6 7 |
| | 37. | Perform common livestock practices such as: | |
| 1 2 3 4 5 – | | a. castrating | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | | b. dehorning | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | | c. hoof trimming | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | | d. giving injections | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 – | | e. treat for bloat | 1 2 3 4 5 6 7 |

| Performance Level: Cannot / Low Level / Average / Above Avg. / High Level | CIRCLE only ONE performance number and ONE source number per skill. Skills | Source: On-Farm / Ag-Related / Part-Time / Preservice / Inservice / Vo Ag Teach. / Other |
|---|---|---|
| 1 2 3 4 5 - 38. | Compare the cost of various chemicals designed to accomplish like purposes. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 39. | Compute the yield, value of product, and cost of production for crops and livestock enterprises. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 40. | Apply fertilizer to a crop using acceptable methods, recommended rates, and at the proper time. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 41. | Develop a crop rotation system . . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 42. | Demonstrate proper welding technique for different kinds of welds from various welding positions . . . . . | 1 2 3 4 5 6 7 |
| 43. | Analyze progeny records for such things as: | |
| 1 2 3 4 5 - | a. pounds of gain per pound of feed . . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - | b. average daily weight gain. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - | c. carcass yield and quality. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - | d. cost per pound of gain . . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 44. | Determine market grades of livestock and crops . . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 45. | Select good quality livestock feedstuffs . . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 46. | Recognize common livestock diseases and health problems. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 47. | Analyze farm enterprises in terms of profit or loss. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 48. | Irrigate and determine the frequency of irrigation for profitable crop production. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 49. | Interpret the meaning of labels found on chemical and pesticide containers . . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 50. | Determine land use and capability of typical soils in the community. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 51. | Safely and properly operate the following equipment in the field: tractor, tillage implement, seeding or fertilizing implement, and harvesting implement . . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 52. | Make intelligent management decisions when problems arise suddenly and unexpectedly. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 53. | Make proper use of current soil and water conservation practices . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 54. | Determine how adverse weather conditions will effect production, and make necessary adjustments in the farming operation. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 55. | Determine the best time to plant, cultivate and harvest. . . . . | 1 2 3 4 5 6 7 |
| 1 2 3 4 5 - 56. | Use new varieties and farm chemicals for maximum crop production . . | 1 2 3 4 5 6 7 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Return the completed instrument to Colorado State University in the enclosed post-paid envelope at your earliest convenience. Thank you for your efforts, it is most appreciated!

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.)

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number).

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools_____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
Ornamental Horticulture Occupations

This is the third and final part of a three part instrument. Listed below are a number of skills used in Ornamental Horticulture Occupations. Read each skill statement carefully, and in the left hand columns, indicate your ability to perform that skill, according to the following scale:

1 - Cannot perform -- Unable to perform this skill
2 - Low Level -- Can perform, but only at a moderate level
3 - Average Level -- Can perform at an average level
4 - Above Average Level -- Can perform at a better than average level
5 - High Level -- Highly competent in performing this skill

In the right hand columns, indicate that single primary source from which you gained each skill, using the following code:

1 - Industry Experience in Horticulture -- Gained this skill primarily through working in the horticulture industry, prior to teaching.
2 - Part-Time Experience -- Gained this skill primarily through part-time work in the horticulture industry, while teaching.
3 - Preservice Teacher Preparation -- Gained this skill primarily through my teacher preparation program, prior to teaching.
4 - Inservice Teacher Preparation -- Gained this skill primarily through workshops, short courses, etc., since I began teaching.
5 - Horticulture Teaching Experience -- Gained this skill primarily through teaching vocational horticulture.
6 - Other -- Gained this skill primarily from sources other than those listed above.

If you cannot perform the skill, leave the source column blank. Please remember that your honest answers are most valuable to this research! CIRCLE only ONE performance number and ONE source number per skill.

| Performance Level (Cannot / Low Level / Average / Above Avg. / High Level) | Skills | Source (Industry / Part-Time / Preservice / Inservice / Hort. Tchg. / Other) |
|---|---|---|
| 1 2 3 4 5 - | 1. Retail diversified stock, (flowers, plants, ceramics), or (seed shrubs, lawn equipment) | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 2. Identify and correct soil drainage problems | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 3. Read and properly interpret chemical and fertilizer labels. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 4. Clean and sterilize greenhouse prior to use | 1 2 3 4 5 6 |
| | 5. Properly regulate greenhouse environment including: | |
| 1 2 3 4 5 - | a. temperature | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | b. light | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | c. humidity. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 6. Sterilize soil. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 7. Sell plants and complete related business transactions. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 8. Propagate plants from cuttings and layerage | 1 2 3 4 5 6 |
| | 9. Properly calibrate such equipment as: | |
| 1 2 3 4 5 - | a. sprayers. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | b. fertilizer spreaders. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | c. seeding equipment | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 10. Determine proper application rates for chemicals and fertilizers. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 11. Apply spray, smoke, and fog to control plant pests. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 12. Prepare soil mixtures | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 13. Estimate cost of landscape jobs | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 14. Fertilize plants based on need as determined by soil and/or foliage test. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 15. Identify and install landscape complements according to a landscape plan; aggregate, river rock, large rocks, gravel, etc. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 16. Develop a plot plan for landscaping | 1 2 3 4 5 6 |

| Performance Level (Cannot / Low Level / Average / Above Avg. / High Level) | | Skills | Source (Industry / Part-Time / Preservice / Inservice / Hort. Tchg. / Other) |
|---|---|---|---|
| | | If you cannot perform the skill, leave the source column blank. Please remember that your honest answers are most valuable to this research! CIRCLE only ONE performance number and ONE source number per skill. | |
| | 17. | Identify common plant materials: | |
| 1 2 3 4 5 - | | a. flowers | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | b. shrubs | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | c. trees | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 18. | Identify and properly install plants according to a landscape plan. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 19. | Prune fruit trees for production. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 20. | Maintain parent stock | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 21. | Properly prepare a budget for horticulture enterprises. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 22. | Start plants from seeds, bulbs and tubers | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 23. | Shape trees and shrubs for growth and beauty. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 24. | Recognize problems arising from insects, rodents, and diseases. | 1 2 3 4 5 6 |
| | 25. | Establish and properly maintain such business records as: | |
| 1 2 3 4 5 - | | a. production records. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | b. inventory records | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | c. sales records | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | d. equipment maintenance records | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | e. tax records | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 26. | Determine and properly apply control measures for insects, rodents, and diseases. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 27. | Level and grade land with motorized equipment and by hand | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 28. | Determine moisture needs of plants. | 1 2 3 4 5 6 |
| | 29. | Safely operate and conduct routine maintenance on such equipment as: | |
| 1 2 3 4 5 - | | a. small tractor | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | b. rototiller. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | c. loader. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | d. soil shredder | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | e. spray equipment | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | | f. light duty trucks | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 30. | Identify common plant pests (weeds) | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 31. | Operate and maintain a shade house (lathe). | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 32. | Identify and select plants for production, based upon market demand | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 33. | Determine drift hazard for spraying | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 34. | Produce and wholesale horticultural plant materials | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 35. | Take soil samples and interpret soil test results | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 36. | Select plant materials for a specific purpose | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 37. | Plan, and construct plant growing structures including: plumbing, electrical, carpentry and concrete. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 38. | Regulate plant growth through use of chemicals. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 39. | Develop detailed landscape design plans | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 40. | Prepare seedbeds. | 1 2 3 4 5 6 |
| 1 2 3 4 5 - | 41. | Give correct advice on plant care | 1 2 3 4 5 6 |

| Performance Level (Cannot / Low Level / Average / Above Avg. / High Level) | | If you cannot perform the skill, leave the source column blank. Please remember that your honest answers are most valuable to this research! CIRCLE only ONE performance number and ONE source number per skill. | Source (Industry / Part-Time / Preservice / Inservice / Hort. Tchg. / Other) |
|---|---|---|---|
| 1 2 3 4 5 – | 42. | Investigate available sources of credit and make credit arrange. . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | 43. | Make routine plumbing and electrical repairs . . . . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | 44. | Read and properly interpret schematic drawings and blueprint . . . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | 45. | Knowledge of plant materials in relation to plant height, color of blossom and foliage, where the plant grows best . . . . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | 46. | Can determine and incorporate methods of reducing overhead costs in operation of the business . . . . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | 47. | Knowledgeable in the proper application of COSHA and OSHA (Occupational Safety and Health Act) regulations which apply to the horticulture industry. . . . . | 1 2 3 4 5 6 |
| | 48. | Have the ability to deal expertly with consumers of horticultural products on wholesale and retail levels | |
| 1 2 3 4 5 – | | a. positive attitude toward the consumer. . . . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | | b. good product knowledge . . . . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | | c. good knowledge of purchase habits. . . . . | 1 2 3 4 5 6 |
| 1 2 3 4 5 – | | d. able to establish rapport with customer. . . . . | 1 2 3 4 5 6 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Return the completed instrument to Colorado State University in the enclosed post-paid envelope at your earliest convenience. Thank you for your effort, it is most appreciated!

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.)

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number):

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools_____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
Consumer Homemaking Occupations

This is the third and final part of a three part instrument. Listed below are a number of skills used in Consumer Homemaking Occupations. Read each skill statement carefully, and indicate your ability to perform that skill, according to the following scale:

1 - Cannot Perform -- Unable to perform this skill.
2 - Low Level -- Can perform, but only at a moderate level.
3 - Average Level -- Can perform at an average level.
4 - Above Average Level -- Can perform at a better than average level.
5 - High Level -- Highly competent in performing this skill.

Please remember that your honest answers are most valuable to this research!

Circle only one number per skill.

| Skills | Performance Level: Cannot Perform | Low Level | Average Level | Above Avg. Level | High Level |
|---|---|---|---|---|---|
| 1. Can determine how much consumer credit a person or family can afford | 1 | 2 | 3 | 4 | 5 |
| 2. Can compare costs per serving of different forms of the same food, such as fresh, canned or dry milk; fresh, frozen or canned fruits; mixes; ready-to-eat foods, etc.. | 1 | 2 | 3 | 4 | 5 |
| 3. Consider how to use things I already have before making additional purchases | 1 | 2 | 3 | 4 | 5 |
| 4. Can take advantage of small savings on goods and services I buy regularly to make my money go farther | 1 | 2 | 3 | 4 | 5 |
| 5. Know how to get legal aid, debt counseling, or other financial assistance | 1 | 2 | 3 | 4 | 5 |
| 6. Practice preventive health care such as physical examinations and dental checkups | 1 | 2 | 3 | 4 | 5 |
| 7. Try to do business with reliable stores | 1 | 2 | 3 | 4 | 5 |
| 8. Recognize that my feelings influence my decisions to buy or use certain goods and services | 1 | 2 | 3 | 4 | 5 |
| 9. Can accept unplanned decisions as okay when they increase personal or family happiness and satisfaction | 1 | 2 | 3 | 4 | 5 |
| 10. Use prescribed medications according to directions | 1 | 2 | 3 | 4 | 5 |
| 11. Promote and use public health services and preventive medicine programs in the community, such as well baby clinics, immunization services, public health nurses, etc. | 1 | 2 | 3 | 4 | 5 |
| 12. Know what actions to take when I am cheated when purchasing goods or services | 1 | 2 | 3 | 4 | 5 |
| 13. Find out my rights and responsibilities when insurance is a fringe benefit of my job | 1 | 2 | 3 | 4 | 5 |
| 14. Can make realistic cost and quality comparisons of home produced vs. ready made clothing and household furnishings, such as curtains, book shelves, and tables | 1 | 2 | 3 | 4 | 5 |
| 15. Can adjust spending and saving on the basis of current economic trends such as inflation and deflation | 1 | 2 | 3 | 4 | 5 |
| 16. Express appreciation for good service and complain when goods or services are poor, thus influencing the goods and service available | 1 | 2 | 3 | 4 | 5 |
| 17. Know which foods have comparable food value and can be substituted for each other to save money or meet family food likes | 1 | 2 | 3 | 4 | 5 |
| 18. Can decide what not to buy when finances are limited | 1 | 2 | 3 | 4 | 5 |
| 19. Can write checks accurately and keep the check book balanced | 1 | 2 | 3 | 4 | 5 |
| 20. Can choose my food to meet my body's nutritional needs | 1 | 2 | 3 | 4 | 5 |
| 21. Can continue to learn, thus improving my earning capability and my ability to manage resources so I can achieve a satisfying life | 1 | 2 | 3 | 4 | 5 |
| 22. Include the costs of shopping around (auto, time, etc.) when searching for the best buy | 1 | 2 | 3 | 4 | 5 |
| 23. Can buy clothing or home furnishings on the basis of quality, fashion, and durability in relation to price | 1 | 2 | 3 | 4 | 5 |
| 24. Can compare quality in relation to price and needs when buying furnishings and appliances | 1 | 2 | 3 | 4 | 5 |
| 25. Can extend personal/family resources by using community resources suited to my needs-such as the public library, public transportation, parks, recreation facilities, and social services | 1 | 2 | 3 | 4 | 5 |

Please circle only one number per skill.

| | Skills | Performance Level: 1 Cannot Perform 2 Low Level 3 Average Level 4 Above Avg. Level 5 High Level |
|---|---|---|
| 26. | Can preserve food for future use by freezing or canning | 1 2 3 4 5 |
| 27. | Can buy the quality of food most suitable for the way I plan to use it--i.e., canned "broken pieces" rather than whole tomatoes for chili; flaked tuna for sandwiches | 1 2 3 4 5 |
| 28. | Seek full information about the care of clothing, textiles, and other items, when I buy | 1 2 3 4 5 |
| 29. | Can adapt and remodel used furnishings to create a desired effect | 1 2 3 4 5 |
| 30. | Involve other family members in deciding things that affect the whole family | 1 2 3 4 5 |
| 31. | Can use food label information, including inspection and grading symbols, in deciding what to buy | 1 2 3 4 5 |
| 32. | Think about and look for different ways to solve a problem; afterward I decide if what I did was good or what I might do differently another time | 1 2 3 4 5 |
| 33. | Know which forms of savings and investments are better for long-range goals than for more immediate goals | 1 2 3 4 5 |
| 34. | Can estimate the amount of waste included when figuring the cost of a food (e.g., the amount of bone and fat in various cuts of meat) | 1 2 3 4 5 |
| 35. | Take advantage of advertised specials when purchasing food | 1 2 3 4 5 |
| 36. | Can decide to buy or not to buy insurance (e.g., health, life, property) after considering my personal needs, the characteristics and costs of individual policies | 1 2 3 4 5 |
| 37. | Recognize the importance of prenatal care for the well-being of both mother and child | 1 2 3 4 5 |
| 38. | Can identify differences in quality of clothing, household goods, and other things I buy | 1 2 3 4 5 |
| 39. | Can provide safe, appropriate storage for different kinds of foods | 1 2 3 4 5 |
| 40. | Take advantage of seasonal specials | 1 2 3 4 5 |
| 41. | Can select home furnishings that express personal tastes and standards of comfort and beauty | 1 2 3 4 5 |
| 42. | Can keep track of my economic assets such as money, skills, time, and my liabilities | 1 2 3 4 5 |
| 43. | Look for factual information to help get good buys | 1 2 3 4 5 |
| 44. | Can develop and follow a system for keeping food costs within a certain amount of money without a "feast or famine" cycle | 1 2 3 4 5 |
| 45. | Can accurately compare the advantages of renting, buying, or building considering family needs, mobility, and financial resources, and the availability of different kinds of housing | 1 2 3 4 5 |
| 46. | Can plan nutritionally adequate meals | 1 2 3 4 5 |
| 47. | Know when and how to seek community aids such as food stamps, welfare, vocational rehabilitation opportunities, etc. | 1 2 3 4 5 |
| 48. | Can recognize ways in which advertising and selling practices influence me to want and buy things | 1 2 3 4 5 |

Please circle only one number per skill.

| | Skills | Performance Level: Cannot Perform | Low Level | Average Level | Above Avg. Level | High Level |
|---|---|---|---|---|---|---|
| 49. | Can recognize factors related to cost such as brand names, pre-preparation, and packaging | 1 | 2 | 3 | 4 | 5 |
| 50. | Can use a shopping plan to save time and energy | 1 | 2 | 3 | 4 | 5 |
| 51. | Can keep records needed for tax purposes | 1 | 2 | 3 | 4 | 5 |
| 52. | Can use non-prescription medicines discriminantly according to information and directions on the label | 1 | 2 | 3 | 4 | 5 |
| 53. | Know the amount of my earnings before and after deductions (e.g., taxes, social security | 1 | 2 | 3 | 4 | 5 |
| 54. | Recognize that my goals are generally based on my values--or what I think really matters in life | 1 | 2 | 3 | 4 | 5 |
| 55. | Can take advantage of unexpected "good buys" because of previous planning | 1 | 2 | 3 | 4 | 5 |
| 56. | Cultivate habits of eating, cleanliness, rest, and exercise that contribute to good health | 1 | 2 | 3 | 4 | 5 |
| 57. | Can select furnishings that have several uses, such as a couch that can also be used as a bed, a table that can be adjusted for size | 1 | 2 | 3 | 4 | 5 |
| 58. | Can make clothing and household furnishings last longer by mending, remodeling, or repairing them | 1 | 2 | 3 | 4 | 5 |
| 59. | Can save regularly toward various goals and purposes | 1 | 2 | 3 | 4 | 5 |
| 60. | Can talk with others concerned to be sure we all understand our family's values, needs and goals | 1 | 2 | 3 | 4 | 5 |
| 61. | Can compare the various forms and sources of credit before buying on credit or borrowing money | 1 | 2 | 3 | 4 | 5 |
| 62. | Participate in efforts to recycle and conserve resources such as paper products, aluminum, and glass | 1 | 2 | 3 | 4 | 5 |
| 63. | Can compute the costs of buying a home including financing, interest and maintenance | 1 | 2 | 3 | 4 | 5 |
| 64. | Compare quality and costs and consider needs before buying | 1 | 2 | 3 | 4 | 5 |
| 65. | Recognize that planning helps me to solve and avoid problems | 1 | 2 | 3 | 4 | 5 |
| 66. | Can plan ahead for changes in my own life (e.g., employment or unemployment, further education, marriage, etc.) that will affect my needs and resources | 1 | 2 | 3 | 4 | 5 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Please return the complete instrument in the enclosed postage-paid envelope, at your earliest convenience. Thank you for your efforts, they are most appreciated.

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.)

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number):

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools _____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
Care and Guidance of Children

This is the third and final part of a three part instrument. Listed below are a number of skills used in the Child Care and Development Occupations. Read each skill statement carefully, and indicate your ability to perform that skill, according to the following scale:

1 - Cannot Perform -- Unable to perform this skill.
2 - Low Level -- Can perform, but only at a moderate level.
3 - Average Level -- Can perform at an average level.
4 - Above Average Level -- Can perform at a better than average level.
5 - High Level -- Highly competent in performing this skill.

Please remember that your honest answers are most valuable to this research!

Circle only one number per skill.

| Skills | Performance Level: Cannot Perform | Low Level | Average Level | Above Avg. Level | High Level |
|---|---|---|---|---|---|
| 1. Can involve parents in one or more activities planned to extend the caregiver's services | 1 | 2 | 3 | 4 | 5 |
| 2. Can establish rapport with parents and maintain it over an extended period | 1 | 2 | 3 | 4 | 5 |
| 3. Can select books appropriate for various stages of development in young children | 1 | 2 | 3 | 4 | 5 |
| 4. Can identify and use a variety of methods to encourage musical activities in the child's daily program | 1 | 2 | 3 | 4 | 5 |
| 5. Can plan and supervise field trips to selected places within the community | 1 | 2 | 3 | 4 | 5 |
| 6. Can identify environmental influences which might affect a child's development | 1 | 2 | 3 | 4 | 5 |
| 7. Can select and supervise games or motor activities appropriate for boys and girls | 1 | 2 | 3 | 4 | 5 |
| 8. Can analyze pending legislation affecting child care/development and describing the effects this legislation would have on local programs | 1 | 2 | 3 | 4 | 5 |
| 9. Can develop a budget for a child care/development program | 1 | 2 | 3 | 4 | 5 |
| 10. Can identify safety hazards in play areas and implement changes to make the area safe | 1 | 2 | 3 | 4 | 5 |
| 11. Can plan a daily schedule for young children which includes regular and appropriate times for meals, snacks, toileting, napping, large group, small group, and independent activities | 1 | 2 | 3 | 4 | 5 |
| 12. Can describe and implement simple science experiences appropriate for young children involving animals and plants | 1 | 2 | 3 | 4 | 5 |
| 13. Can provide opportunities for children to make choices and/or act independently in different supervised situations | 1 | 2 | 3 | 4 | 5 |
| 14. Can identify and obtain credentials required by state or local law for employment in a child care/development program | 1 | 2 | 3 | 4 | 5 |
| 15. Can implement activities to encourage children to communicate verbally | 1 | 2 | 3 | 4 | 5 |
| 16. Can evaluate child care/development programs according to local licensing standards. | 1 | 2 | 3 | 4 | 5 |
| 17. Demonstrates ability to provide for the basic physical and emotional needs of infants by: | | | | | |
| a. changing baby's diapers | 1 | 2 | 3 | 4 | 5 |
| b. bathing a baby | 1 | 2 | 3 | 4 | 5 |
| c. preparing formula and feeding an infant | 1 | 2 | 3 | 4 | 5 |
| d. preparing and introducing solid foods to an infant | 1 | 2 | 3 | 4 | 5 |
| e. showing love and affection toward infants | 1 | 2 | 3 | 4 | 5 |
| f. preparing an infant for rest or nap period | 1 | 2 | 3 | 4 | 5 |
| 18. Can model for parents appropriate responses to toddlers' inappropriate behavior. | 1 | 2 | 3 | 4 | 5 |
| 19. Can deal effectively with a specific problem behavior | 1 | 2 | 3 | 4 | 5 |
| 20. Can enact ways to help parents in making a decision about a problem situation with their child | 1 | 2 | 3 | 4 | 5 |
| 21. Can develop positive techniques for guiding children's behavior | 1 | 2 | 3 | 4 | 5 |
| 22. Can summarize the local and/or state regulations regarding the administering of treatment and medication to children | 1 | 2 | 3 | 4 | 5 |

Please circle only one number per skill.

| Skills | Performance Level: 1 Cannot Perform 2 Low Level 3 Average Level 4 Above Avg. Level 5 High Level |
|---|---|
| 23. Can outline an alternate plan for adapting or rearranging a day care center activity area to increase its potential for developing motor skills | 1 2 3 4 5 |
| 24. Can inact standards to be met by a program caring for infants | 1 2 3 4 5 |
| 25. Can identify examples of sciences-related topics which are part of young children's daily experiences | 1 2 3 4 5 |
| 26. Can develop a set of personnel policies for a child care/development program | 1 2 3 4 5 |
| 27. Can identify emotions expressed by infants, and appropriately respond to each | 1 2 3 4 5 |
| 28. Can identify and use at least four methods to encourage art activities in the child's daily program | 1 2 3 4 5 |
| 29. Can conduct proper procedures, to use in case of emergencies such as fire, flood, or storm | 1 2 3 4 5 |
| 30. Can analyze a case description or an observation involving children's behavior to determine the appropriateness of the guidance techniques used | 1 2 3 4 5 |
| 31. Can identify examples of indoor and outdoor equipment to facilitate large and small muscle development in children | 1 2 3 4 5 |
| 32. Can identify common forms of dramatization in which young children engage | 1 2 3 4 5 |
| 33. Can develop guidelines to create an environment which facilitates social development in young children | 1 2 3 4 5 |
| 34. Can answer, in a positive way, questions frequently asked by children of school age | 1 2 3 4 5 |
| 35. Can describe appropriate local procedures to follow when it is believed that a child has been battered or abused | 1 2 3 4 5 |
| 36. Can identify through personal experience at least four rewards of jobs related to child care/development | 1 2 3 4 5 |
| 37. Demonstrate ability to provide a healthy and safe environment for infants. | 1 2 3 4 5 |
| 38. Can describe positive alternatives for handling a relationship problem between an adult and a child | 1 2 3 4 5 |
| 39. Can identify guidelines to use in deciding when to help children and when to stay in the background | 1 2 3 4 5 |
| 40. Can demonstrate Red Cross approved first-aid techniques in accident and/or emergency situations | 1 2 3 4 5 |
| 41. Can plan and execute with the children, activities based on traditions of different cultures within the group | 1 2 3 4 5 |
| 42. Can use different kinds of body language to convey a feeling or mood | 1 2 3 4 5 |
| 43. Can effectively engage in verbal communication with a child and an adult | 1 2 3 4 5 |
| 44. Demonstrate personal qualities or behaviors necessary for good relations with co-workers and the public | 1 2 3 4 5 |
| 45. Can prepare a file of indoor activities which will stimulate children to select and pursue special interests and creative activities | 1 2 3 4 5 |

Please circle only one number per skill.

| Skills | Performance Level: Cannot Perform | Low Level | Average Level | Above Avg. Level | High Level |
|---|---|---|---|---|---|
| 46. Demonstrates knowledge in identification of, and services for: | | | | | |
| a. mentally retarded children | 1 | 2 | 3 | 4 | 5 |
| b. learning disabled children | 1 | 2 | 3 | 4 | 5 |
| c. hearing impaired children | 1 | 2 | 3 | 4 | 5 |
| d. visually impaired children | 1 | 2 | 3 | 4 | 5 |
| e. speech impaired children | 1 | 2 | 3 | 4 | 5 |
| f. crippled children | 1 | 2 | 3 | 4 | 5 |
| g. chronically ill children | 1 | 2 | 3 | 4 | 5 |
| h. emotionally disturbed children | 1 | 2 | 3 | 4 | 5 |
| i. socially maladjusted children | 1 | 2 | 3 | 4 | 5 |
| 47. Can identify and use community resources which provide opportunities for children's social growth and development | 1 | 2 | 3 | 4 | 5 |
| 48. Can identify and use living things for science-related preschool experiences | 1 | 2 | 3 | 4 | 5 |
| 49. Display personal characteristics which are necessary for providing quality care for infants | 1 | 2 | 3 | 4 | 5 |
| 50. Can teach a specific concept to young children | 1 | 2 | 3 | 4 | 5 |
| 51. Can describe and use experiences which stimulate the intellectual development of young children | 1 | 2 | 3 | 4 | 5 |
| 52. Can conduct the daily health check and follow-up according to established guidelines | 1 | 2 | 3 | 4 | 5 |
| 53. Can identify and initiate activities which will foster the development of small and large muscles in young children | 1 | 2 | 3 | 4 | 5 |
| 54. Can implement activities which help a child learn new words and appropriate language usage | 1 | 2 | 3 | 4 | 5 |
| 55. Exhibits good listening habits | 1 | 2 | 3 | 4 | 5 |
| 56. Can list five phrases which could be used with children to build positive self image | 1 | 2 | 3 | 4 | 5 |

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Please circle only one number per skill.

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| 28. Can identify and use at least four methods to encourage art activities in the child's daily program | 1 | 2 | 3 | 4 | 5 |
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OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

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1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

1 - Vocational Agriculture
2 - Business and Office Education
3 - Vocational Home Economics
4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

1 - Production Agriculture
2 - Ornamental Horticulture
3 - Accounting and Computing
4 - Data Processing
5 - General Clerical
6 - Steno-Secretarial
7 - Consumer Homemaking
8 - Food Service
9 - Child Care/Development
10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

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2 - 1 year
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4 - 3 years
5 - 4 years
6 - _____years (Indicate No.)

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| | Completed In Colorado | Other State |
|---|---|---|
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| 2 - Associate (AS) | 1 | 2 |
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| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
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8. Where did you obtain your undergraduate teacher training? (Circle one number):

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6 - Univ. of Southern Colorado
7 - Western State College
8 - Other Colo. Schools_____
9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

_____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

_____ (Years)

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

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This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

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4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
Food Management, Production, and Service Occupations

This is the third and final part of a three part instrument. Listed below are a number of skills used in Food Management, Production and Service Occupations. Read each skill statement carefully, and indicate your ability to perform that skill, according to the following scale:

1 - Cannot Perform -- Unable to perform this skill.
2 - Low Level -- Can perform, but only at a moderate level.
3 - Average Level -- Can perform at an average level.
4 - Above Average Level -- Can perform at a better than average level.
5 - High Level -- Highly competent in performing this skill

Please remember that your honest answers are most valuable to this research!

Circle only one number per skill.

| Skills | Performance Level<br>Cannot Perform<br>Low Level<br>Average Level<br>Above Avg. Level<br>High Level |
|---|---|
| 1. Can employ facts of disease transmission in developing a list of good everyday health habits | 1 2 3 4 5 |
| 2. Can use fire-fighting equipment correctly | 1 2 3 4 5 |
| 3. Can list steps to follow when cleaning food contact surfaces | 1 2 3 4 5 |
| 4. Can develop guidelines for use in purchasing specific foods | 1 2 3 4 5 |
| 5. Can employ variety in common food preparations | 1 2 3 4 5 |
| 6. Uses correct time and temperature techniques in food preparation | 1 2 3 4 5 |
| 7. Can list personal qualities required in food service workers | 1 2 3 4 5 |
| 8. Can identify poor kitchen practices favoring bacterial growth | 1 2 3 4 5 |
| 9. Can properly complete an employment application and interview for employment in a food service occupation | 1 2 3 4 5 |
| 10. Can properly list procedures in processing foods at the various preparation stations including: | |
| a. pantry | 1 2 3 4 5 |
| b. fry station | 1 2 3 4 5 |
| c. steam table | 1 2 3 4 5 |
| 11. Can recognize safety hazards and suggest safety precautions | 1 2 3 4 5 |
| 12. Has a good understanding of laws and regulations which apply to the food service jobs | 1 2 3 4 5 |
| 13. Practice sanitary food handling techniques when serving the customers | 1 2 3 4 5 |
| 14. Can relate sanitation and safety practice to maintaining the public health | 1 2 3 4 5 |
| 15. Can evaluate housekeeping in terms of cleanliness, sanitation, and safety | 1 2 3 4 5 |
| 16. Works effectively in cooperation with other personnel | 1 2 3 4 5 |
| 17. Can list steps to follow when cleaning various food preparation equipment | 1 2 3 4 5 |
| 18. Can properly perform dining room duties including: | |
| a. busing tables | 1 2 3 4 5 |
| b. waiter/waitress | 1 2 3 4 5 |
| c. host/hostess | 1 2 3 4 5 |
| 19. Can list accidents and injuries which may occur in food service work, and ways to prevent them | 1 2 3 4 5 |
| 20. Can properly prepare for storage and store prepared foods | 1 2 3 4 5 |
| 21. Can follow proper procedures in storing foods and maintaining sanitation of food storage units | 1 2 3 4 5 |
| 22. Can properly maintain stock of necessary food preparation materials | 1 2 3 4 5 |
| 23. Can list and explain the major ingredients of common menu items | 1 2 3 4 5 |
| 24. Can describe the services rendered by various types of food service establishments. | 1 2 3 4 5 |
| 25. Understands and willingly meets grooming and dress requirements for various food service jobs | 1 2 3 4 5 |

Circle only one number per skill.

| | Skills | Performance Level (Cannot 1 · Low 2 · Average 3 · Above Avg. 4 · High 5) |
|---|---|---|
| 26. | Can describe sanitary techniques for handling food, equipment, and utencils | 1 2 3 4 5 |
| 27. | Can use proper procedures for washing dishes and utencils by machine and hand | 1 2 3 4 5 |
| 28. | Can adjust recipes for larger or smaller preparations | 1 2 3 4 5 |
| 29. | Can identify basic levels of training and experience required for various food service occupations | 1 2 3 4 5 |
| 30. | Serves food attractively and efficiently | 1 2 3 4 5 |
| 31. | Accurately uses devices for standardized portions (scales, scoops, dippers) | 1 2 3 4 5 |
| 32. | Abides by policies of the employer | 1 2 3 4 5 |
| 33. | Can measure and weigh ingredients accurately | 1 2 3 4 5 |
| 34. | Makes guests feel pleasant and comfortable | 1 2 3 4 5 |
| 35. | Can properly complete the functions of employee recruitment and training for a given food service business | 1 2 3 4 5 |
| 36. | Can list kinds of food service personnel who would be employed by each type of food service establishment | 1 2 3 4 5 |
| 37. | Can arrange food preparations in attractive and appetizing ways | 1 2 3 4 5 |
| 38. | Can select quality ingredients for food preparations | 1 2 3 4 5 |
| 39. | Can describe general characteristics of disease causing bacteria | 1 2 3 4 5 |
| 40. | Can select foods to be purchased on the basis of written guidelines | 1 2 3 4 5 |
| 41. | Demonstrates skills needed to provide sanitary housekeeping | 1 2 3 4 5 |
| 42. | Can explain and properly perform the principle methods of cookery including: | |
| | a. charco-broil | 1 2 3 4 5 |
| | b. deep fry | 1 2 3 4 5 |
| 43. | Can compute the cost per serving of food | 1 2 3 4 5 |
| 44. | Can keep accurate records necessary for proper and efficient management of food, labor and overhead costs | 1 2 3 4 5 |
| 45. | Serves special needs of guests warmly and efficiently | 1 2 3 4 5 |
| 46. | Knows and can apply basic principles of merchandising and sales | 1 2 3 4 5 |
| 47. | Can demonstrate correct procedures in food handling including: | |
| | a. receiving | 1 2 3 4 5 |
| | b. checking | 1 2 3 4 5 |
| | c. storing | 1 2 3 4 5 |
| | d. freezing | 1 2 3 4 5 |
| | e. refrigerating | 1 2 3 4 5 |
| 48. | Can use correct procedures and equipment to properly prepare the following foods; for breakfast, lunch, or dinner cooking: | |
| | a. meats, poultry, and fish | 1 2 3 4 5 |
| | b. fresh and cooked vegetables | 1 2 3 4 5 |
| | c. soups | 1 2 3 4 5 |
| | d. salads and dressings | 1 2 3 4 5 |
| | e. sandwiches | 1 2 3 4 5 |
| | f. eggs | 1 2 3 4 5 |
| | g. beverages | 1 2 3 4 5 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Please return the complete instrument in the enclosed postage-paid envelope, at your earliest convenience. Thank you for your efforts, they are most appreciated!

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.)

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number):

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools_____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

Definition RELATED OCCUPATIONAL EXPERIENCE - "Practical" Industry experience (not teaching) with those technical subject matter competencies related to your area of vocational instruction.

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 — 9 -- 8 — 7 -- 6 -- 5 -- 4 — 3 -- 2 — 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
STENOGRAPHIC AND SECRETARIAL OCCUPATIONS

This is the third and final part of a three part instrument. Listed below are a number of skills used in Stenographic and Secretarial Occupations. Read each skill statement carefully, and indicate your ability to perform that skill, according to the following scale:

1 - Cannot Perform -- Unable to perform this skill.
2 - Low Level -- Can perform, but only at a moderate level.
3 - Average Level -- Can perform at an average level.
4 - Above Average Level -- Can perform at a better than average level.
5 - High Level -- Highly competent in performing this skill.

Please remember that your honest answers are most valuable to this research!

Circle only one number per skill.

| Skills | Performance Level: Cannot Perform | Low Level | Average Level | Above Avg. Level | High Level |
|---|---|---|---|---|---|
| 1. Exchanges oral and written information efficiently and accurately with: | | | | | |
| a. persons outside the company | 1 | 2 | 3 | 4 | 5 |
| b. company personnel | 1 | 2 | 3 | 4 | 5 |
| 2. Interacts and works in harmony with other office workers toward a specific accomplishment or goal | 1 | 2 | 3 | 4 | 5 |
| 3. Can properly place outgoing telephone calls | 1 | 2 | 3 | 4 | 5 |
| 4. Can effectively refer inquiries to others | 1 | 2 | 3 | 4 | 5 |
| 5. Can discuss job related procedures and problems with supervisor or others who are affected by those procedures | 1 | 2 | 3 | 4 | 5 |
| 6. Can arrange and type mailable business letters | 1 | 2 | 3 | 4 | 5 |
| 7. Takes the initiative in anticipating what needs to be done | 1 | 2 | 3 | 4 | 5 |
| 8. Can type single and multiple carbon copies efficiently | 1 | 2 | 3 | 4 | 5 |
| 9. Demonstrates the ability to cope with pressures of simultaneous tasks and contacts | 1 | 2 | 3 | 4 | 5 |
| 10. Demonstrates a knowledge of company policy and priorities | 1 | 2 | 3 | 4 | 5 |
| 11. Can accurately transcribe on the typewriter from machine dictation at high production speed | 1 | 2 | 3 | 4 | 5 |
| 12. Has the ability to calm difficult persons | 1 | 2 | 3 | 4 | 5 |
| 13. Can take minutes at business meetings and properly formalize those minutes | 1 | 2 | 3 | 4 | 5 |
| 14. Can exercise judgment and discretion | 1 | 2 | 3 | 4 | 5 |
| 15. Can use good diction | 1 | 2 | 3 | 4 | 5 |
| 16. Demonstrates the ability to explain the same thing in different ways | 1 | 2 | 3 | 4 | 5 |
| 17. Can properly index and code materials for filing | 1 | 2 | 3 | 4 | 5 |
| 18. Can type a variety of letter styles | 1 | 2 | 3 | 4 | 5 |
| 19. Can efficiently process departmental incoming mail | | | | | |
| a. open and date mail | 1 | 2 | 3 | 4 | 5 |
| b. attach related materials | 1 | 2 | 3 | 4 | 5 |
| c. refer and route mail received | 1 | 2 | 3 | 4 | 5 |
| 20. Can keep work organized while coping with interruptions | 1 | 2 | 3 | 4 | 5 |
| 21. Can provide assistance in maintaining appointment or business schedules | 1 | 2 | 3 | 4 | 5 |
| 22. Can proofread and accurately correct all final copy | 1 | 2 | 3 | 4 | 5 |
| 23. Demonstrates resourcefulness in searching for filed materials | 1 | 2 | 3 | 4 | 5 |

Circle only one number per skill.

| Skills | Performance Level: Cannot / Low / Average / Above Avg. / High |
|---|---|
| 24. Can efficiently operate special telephone equipment; such as six-button, multiple line equipment | 1 2 3 4 5 |
| 25. Can record meaningful messages | 1 2 3 4 5 |
| 26. Can make screening decisions--in person or by phone | 1 2 3 4 5 |
| 27. Can demonstrate effective communication skills--oral and written | 1 2 3 4 5 |
| 28. Possesses a knowledge of job, personnel, and department functions | 1 2 3 4 5 |
| 29. Can properly process outgoing mail | 1 2 3 4 5 |
| 30. Can demonstrate tact, courtesy, and the ability to remain calm | 1 2 3 4 5 |
| 31. Can explain procedures clearly and effectively to a variety of persons | 1 2 3 4 5 |
| 32. Maintains correct and pleasant speech and voice habits | 1 2 3 4 5 |
| 33. Can properly address business envelopes | 1 2 3 4 5 |
| 34. Maintains a pleasing physical appearance while on the job | 1 2 3 4 5 |
| 35. Can complete typewritten tasks when: | |
| a. coping with the pressure of time | 1 2 3 4 5 |
| b. completing multiple tasks | 1 2 3 4 5 |
| c. working with many interruptions | 1 2 3 4 5 |
| 36. Has high statistical typing skill | 1 2 3 4 5 |
| 37. Can accurately follow oral and written directions | 1 2 3 4 5 |
| 38. Demonstrates good spelling, grammar, and punctuation skills | 1 2 3 4 5 |
| 39. Can compose simple letters and reports, given an idea or facts for the content | 1 2 3 4 5 |
| 40. Can establish and maintain common filing systems including: | |
| a. alphabetic name files | 1 2 3 4 5 |
| b. numerical files | 1 2 3 4 5 |
| c. chronological files | 1 2 3 4 5 |
| d. color coding systems | 1 2 3 4 5 |
| 41. Demonstrates trustworthiness and loyalty to the company effort | 1 2 3 4 5 |
| 42. Can exercise initiative (self-starting) and can organize work for productive use of time available | 1 2 3 4 5 |
| 43. Can apply company policies and procedures in decision-making process | 1 2 3 4 5 |
| 44. Can use basic bookkeeping skills | 1 2 3 4 5 |
| 45. Can make proper arrangements with co-worker when leaving desk for other duties | 1 2 3 4 5 |
| 46. Can schedule appointments and maintain a business calendar | 1 2 3 4 5 |
| 47. Can make routine decisions, interpretations, and judgments using manuals or written statements of policies and procedures | 1 2 3 4 5 |
| 48. Can exercise judgment in handling confidential material | 1 2 3 4 5 |
| 49. Can work without direct supervision | 1 2 3 4 5 |

Circle only one number per skill.

| | Skills | Performance Level: Cannot | Low | Average | Above Avg. | High |
|---|---|---|---|---|---|---|
| 50. | Can accurately transcribe copy from dictation | 1 | 2 | 3 | 4 | 5 |
| 51. | Can correctly and efficiently prepare letters of: | | | | | |
| | a. acknowledgement | 1 | 2 | 3 | 4 | 5 |
| | b. appointment | 1 | 2 | 3 | 4 | 5 |
| | c. transmittals | 1 | 2 | 3 | 4 | 5 |
| 52. | Can efficiently process incoming telephone calls | 1 | 2 | 3 | 4 | 5 |
| 53. | Can accurately type correspondence, memos, and other items from form or rough draft | 1 | 2 | 3 | 4 | 5 |
| 54. | Can accurately update files from changes received | 1 | 2 | 3 | 4 | 5 |
| 55. | Can perform those arithmetical operations associated with recordkeeping | 1 | 2 | 3 | 4 | 5 |
| 56. | Can use reference books and directories effectively and correctly | 1 | 2 | 3 | 4 | 5 |
| 57. | Understand the role of data processing in modern business operations | 1 | 2 | 3 | 4 | 5 |
| 58. | Understands the basic concepts of office administration: | | | | | |
| | a. techniques of office management | 1 | 2 | 3 | 4 | 5 |
| | b. control of clerical services | 1 | 2 | 3 | 4 | 5 |
| | c. layout and work flow | 1 | 2 | 3 | 4 | 5 |
| 59. | Can maintain the supplies inventory | 1 | 2 | 3 | 4 | 5 |
| 60. | Can set up and type multiple-column financial statements or reports | 1 | 2 | 3 | 4 | 5 |
| 61. | Can make all the arrangements for business conferences, including room reservations, travel arrangements, scheduling, banquet or luncheon facilities | 1 | 2 | 3 | 4 | 5 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Please return the complete instrument in the enclosed postage-paid envelope, at your earliest convenience. Thank you for your efforts, they are most appreciated!

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.)

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number):

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools_____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

Definition RELATED OCCUPATIONAL EXPERIENCE - "Practical" Industry experience (not teaching) with those technical subject matter competencies related to your area of vocational instruction.

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
Filing, Machine and General Clerical Occupations

This is the third and final part of a three part instrument. Listed below are a number of skills used in Filing, Machine and General Clerical Occupations. Read each skill statement carefully, and indicate your ability to perform that skill, according to the following scale:

1 - Cannot Perform -- Unable to perform this skill.
2 - Low Level -- Can perform, but only at a moderate level.
3 - Average Level -- Can perform at an average level.
4 - Above Average Level -- Can perform at a better than average level.
5 - High Level -- Highly competent in performing this skill.

Please remember that your honest answers are most valuable to this research!

Circle only one number per skill.

| Skills | Performance Level: Cannot Perform / Low Level / Average Level / Above Avg. Level / High Level |
|---|---|
| 1. Has the knowledge of filing systems and departmental functions | 1 2 3 4 5 |
| 2. Can accurately scan and distinguish names, numbers, and colors for various filing procedures | 1 2 3 4 5 |
| 3. Can maintain an established filing system | 1 2 3 4 5 |
| 4. Can use coding systems or establish coding systems for filing systems | 1 2 3 4 5 |
| 5. Can keep work organized while coping with interruptions | 1 2 3 4 5 |
| 6. Has good alphabetizing skills | 1 2 3 4 5 |
| 7. Can demonstrate effective communication skills--oral and written | 1 2 3 4 5 |
| 8. Can properly sort, classify, and code materials to be filed | 1 2 3 4 5 |
| 9. Can appropriately use various types of correcting devices--erasures, correcting tape, fluid, etc. | 1 2 3 4 5 |
| 10. Can accurately prepare a report of petty cash transactions (vouchers) | 1 2 3 4 5 |
| 11. Can detect needed corrections and follow special instructions on work to be done | 1 2 3 4 5 |
| 12. Can arrange names and addresses in correct order | 1 2 3 4 5 |
| 13. Can use the telephone effectively, practicing principles of telephone courtesy | 1 2 3 4 5 |
| 14. Has a knowledge of the material filed | 1 2 3 4 5 |
| 15. Can spot pertinent information within reports, forms, and files | 1 2 3 4 5 |
| 16. Can compose routine letters | 1 2 3 4 5 |
| 17. Can schedule appointments and make correct notations concerning the appointment | 1 2 3 4 5 |
| 18. Can accurately produce typewritten copy | 1 2 3 4 5 |
| 19. Has good proofreading skills | 1 2 3 4 5 |
| 20. Can organize to meet deadlines when completing multiple tasks | 1 2 3 4 5 |
| 21. Demonstrates good spelling, grammar and punctuation skills | 1 2 3 4 5 |
| 22. Can divide words properly in typed copy | 1 2 3 4 5 |
| 23. Can write checks accurately and properly maintain the check ledger | 1 2 3 4 5 |
| 24. Can sort and distribute mail quickly and accurately | 1 2 3 4 5 |
| 25. Can record accurate notes of telephone messages and make necessary follow-up arrangements for return calls | 1 2 3 4 5 |
| 26. Can route interoffice messages | 1 2 3 4 5 |
| 27. Can quickly and accurately process requests for records or files | 1 2 3 4 5 |
| 28. Can type invoices from such documents as sales tickets, contracts, and receiving reports | 1 2 3 4 5 |
| 29. Can type mailable reports from rough draft | 1 2 3 4 5 |
| 30. Can keep an accurate record of checks written | 1 2 3 4 5 |
| 31. Can transcribe mailable letters and communication from machine dictated materials | 1 2 3 4 5 |

Circle only one number per skill.

| Skills | Performance Level: Cannot | Low | Average | Above Avg. | High |
|---|---|---|---|---|---|
| 32. Can efficiently and accurately calculate arithmetical problems of: | | | | | |
| a. computing percentages | 1 | 2 | 3 | 4 | 5 |
| b. computing discounts | 1 | 2 | 3 | 4 | 5 |
| 33. Can type mailable business letters in various acceptable styles | 1 | 2 | 3 | 4 | 5 |
| 34. Can prepare bank deposit slips from cash receipts | 1 | 2 | 3 | 4 | 5 |
| 35. Demonstrates a tolerance for routine work | 1 | 2 | 3 | 4 | 5 |
| 36. Can compile data for reports | 1 | 2 | 3 | 4 | 5 |
| 37. Can record data on forms quickly and accurately | 1 | 2 | 3 | 4 | 5 |
| 38. Can work under pressure of time in meeting deadlines | 1 | 2 | 3 | 4 | 5 |
| 39. Can apply basic mathematics as required by the job situation | 1 | 2 | 3 | 4 | 5 |
| 40. Can work without direct supervision | 1 | 2 | 3 | 4 | 5 |
| 41. Can make work-priority decisions | 1 | 2 | 3 | 4 | 5 |
| 42. Can operate accurately manual and electronic calculators | 1 | 2 | 3 | 4 | 5 |
| 43. Can set up and type tables and letters from unarranged (rough draft) copy | 1 | 2 | 3 | 4 | 5 |
| 44. Can use good diction | 1 | 2 | 3 | 4 | 5 |
| 45. Has legible handwriting | 1 | 2 | 3 | 4 | 5 |
| 46. Can use long-distance lines and special telephone hookups | 1 | 2 | 3 | 4 | 5 |
| 47. Demonstrates good grooming practice throughout the year with little or no coaching. | 1 | 2 | 3 | 4 | 5 |
| 48. Can effectively use dictating-transcribing equipment | 1 | 2 | 3 | 4 | 5 |
| 49. Can insert words or numbers on various business forms accurately | 1 | 2 | 3 | 4 | 5 |
| 50. Can correct errors neatly on all forms and multiple copies | 1 | 2 | 3 | 4 | 5 |
| 51. Can accurately type correspondence, memos, and other items from form and rough draft | 1 | 2 | 3 | 4 | 5 |
| 52. Can accurately cross-reference file material | 1 | 2 | 3 | 4 | 5 |
| 53. Can accurately follow oral and written directions | 1 | 2 | 3 | 4 | 5 |
| 54. Can type consistently at 60 net words a minute from straight copy | 1 | 2 | 3 | 4 | 5 |
| 55. Can use dictionaries, directories, and reference materials quickly and efficiently. | 1 | 2 | 3 | 4 | 5 |
| 56. Can make screening decisions--in person or by telephone | 1 | 2 | 3 | 4 | 5 |
| 57. Can compute deductions from gross earnings such as: | | | | | |
| a. federal and state income withholding tax | 1 | 2 | 3 | 4 | 5 |
| b. F.I.C.A. | 1 | 2 | 3 | 4 | 5 |
| c. garnishments | 1 | 2 | 3 | 4 | 5 |
| d. voluntary deductions | 1 | 2 | 3 | 4 | 5 |
| 58. Can compute gross earnings by such payroll plans as: | | | | | |
| a. hourly rate | 1 | 2 | 3 | 4 | 5 |
| b. piece-rate plan | 1 | 2 | 3 | 4 | 5 |
| 59. Can efficiently change, update and purge files | 1 | 2 | 3 | 4 | 5 |
| 60. Demonstrates ability to keep delicate matters and secured information confidential. | 1 | 2 | 3 | 4 | 5 |
| 61. Demonstrates initiative to complete routine tasks without being asked | 1 | 2 | 3 | 4 | 5 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Please return the complete instrument in the enclosed postage-paid envelope, at your earliest convenience. Thank you for your efforts, they are most appreciated!

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.)

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number):

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools _____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

Definition RELATED OCCUPATIONAL EXPERIENCE - "Practical" Industry experience (not teaching) with those technical subject matter competencies related to your area of vocational instruction.

11. Indicate the number of:

    A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

    B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

    C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

    D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

    E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

    10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
    Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

    10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
    Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

TECHNICAL COMPETENCE--SELF EVALUATION
Accounting and Computing Occupations

This is the third and final part of a three part instrument. Listed below are a number of skills used in Accounting and Computing Occupations. Read each skill statement carefully, and indicate your ability to perform that skill, according to the following scale:

1 - Cannot Perform -- Unable to perform this skill.
2 - Low Level -- Can perform, but only at a moderate level.
3 - Average Level -- Can perform at an average level.
4 - Above Average Level -- Can perform at a better than average level.
5 - High Level -- Highly competent in performing this skill.

Please remember that your honest answers are most valuable to this research!

Circle only one number per skill.

| Skills | Performance Level: Cannot Perform | Low Level | Average Level | Above Avg. Level | High Level |
|---|---|---|---|---|---|
| 1. Can reconcile the bank statement with the checkbook and ledger | 1 | 2 | 3 | 4 | 5 |
| 2. Can establish and properly maintain a petty cash fund | 1 | 2 | 3 | 4 | 5 |
| 3. Can accurately analyze depreciation, amortization, and depletion schedules | 1 | 2 | 3 | 4 | 5 |
| 4. Can calculate and interpret merchandise inventory turnover | 1 | 2 | 3 | 4 | 5 |
| 5. Can calculate and interpret the acid-test ratio | 1 | 2 | 3 | 4 | 5 |
| 6. Can calculate and interpret the current ratio | 1 | 2 | 3 | 4 | 5 |
| 7. Can calculate and interpret accounts receivable turnover. | 1 | 2 | 3 | 4 | 5 |
| 8. Understand and can describe the concept of working capital. | 1 | 2 | 3 | 4 | 5 |
| 9. Given fixed and variable costs, can calculate break-even point | 1 | 2 | 3 | 4 | 5 |
| 10. Can properly establish and maintain payroll records | 1 | 2 | 3 | 4 | 5 |
| 11. Can record employers payroll tax liabilities | 1 | 2 | 3 | 4 | 5 |
| 12. Can prepare and submit payroll tax remittance forms to both the state and federal government | 1 | 2 | 3 | 4 | 5 |
| 13. Can properly prepare a schedule of accounts receivable | 1 | 2 | 3 | 4 | 5 |
| 14. Can properly age accounts receivable to determine overdue accounts | 1 | 2 | 3 | 4 | 5 |
| 15. Can reconcile records for the collection of debts previously written off | 1 | 2 | 3 | 4 | 5 |
| 16. Can accurately prepare basic financial statements such as income statements and balance sheets for a merchandising or service business | 1 | 2 | 3 | 4 | 5 |
| 17. Can prepare basic income statements and balance sheets for manufacturing firms | 1 | 2 | 3 | 4 | 5 |
| 18. Can prepare a basic statement of cost of goods manufactured | 1 | 2 | 3 | 4 | 5 |
| 19. Can prepare a basic comparative income statement and balance sheet for a departmental or branch business operation | 1 | 2 | 3 | 4 | 5 |
| 20. Can accurately determine net sales | 1 | 2 | 3 | 4 | 5 |
| 21. Can describe the purpose of financial statements such as income statements and balance sheet | 1 | 2 | 3 | 4 | 5 |
| 22. Can prepare and explain a flow chart illustrating the steps in an accounting cycle for a given business | 1 | 2 | 3 | 4 | 5 |
| 23. Can properly classify accounts into assets, liabilities, and owners equity | 1 | 2 | 3 | 4 | 5 |
| 24. Can explain the effect of various transactions on the accounting equation | 1 | 2 | 3 | 4 | 5 |
| 25. Can identify the advantages and disadvantages of the accrual basis of accounting. | 1 | 2 | 3 | 4 | 5 |
| 26. Can record transactions which involve the sale of fixed assets including loss or gain on the sale and accumulated depreciation | 1 | 2 | 3 | 4 | 5 |
| 27. Understands and can explain the rules of debiting and crediting | 1 | 2 | 3 | 4 | 5 |
| 28. Understands and can apply the "Accounting Equation" (Assets = Liabilities + Owner's Equity) | 1 | 2 | 3 | 4 | 5 |

Circle only one number per skill.

| Skills | Performance Level: Cannot | Low | Average | Above Avg. | High |
|---|---|---|---|---|---|
| 29. Understands and can describe the purpose of accounts | 1 | 2 | 3 | 4 | 5 |
| 30. Understands and can describe the purpose of the ledger | 1 | 2 | 3 | 4 | 5 |
| 31. Understands the accounting principle stating that there must be a proper cut off date for the recording of revenues, costs, and expenses in the accounting period | 1 | 2 | 3 | 4 | 5 |
| 32. Can accurately record changes in owner's equity accounts including capital accounts, revenue accounts, and expense accounts | 1 | 2 | 3 | 4 | 5 |
| 33. Understand and can explain the accounting principle that prepaid expenses should be charged as expenses to future periods in which they are used | 1 | 2 | 3 | 4 | 5 |
| 34. Can establish and close an expense and revenue or profit and loss summary account. | 1 | 2 | 3 | 4 | 5 |
| 35. Can accurately locate trial balance errors | 1 | 2 | 3 | 4 | 5 |
| 36. Can accurately complete a post closing trial balance | 1 | 2 | 3 | 4 | 5 |
| 37. Can locate accounting errors which are not revealed by trial balance | 1 | 2 | 3 | 4 | 5 |
| 38. Can set up and maintain a journal-less accounting system | 1 | 2 | 3 | 4 | 5 |
| 39. Can establish and maintain a voucher system: | | | | | |
| a. to verify and record liabilities | 1 | 2 | 3 | 4 | 5 |
| b. to pay and record cash payments | 1 | 2 | 3 | 4 | 5 |
| 40. Can design and properly use a combination journal | 1 | 2 | 3 | 4 | 5 |
| 41. Understand and can describe the theory of absorption costing in relationship to a manufacturing firm | 1 | 2 | 3 | 4 | 5 |
| 42. Understand and can describe the theory of variable costing or direct costing in relationship to a manufacturing firm | 1 | 2 | 3 | 4 | 5 |
| 43. Can maintain job order cost or process cost accounting systems | 1 | 2 | 3 | 4 | 5 |
| 44. Can apply the concept of income averaging to the calculation of income tax | 1 | 2 | 3 | 4 | 5 |
| 45. Can prepare a tax return with itemized deductions for a salaried individual with no business income | 1 | 2 | 3 | 4 | 5 |
| 46. Can prepare a tax return, including the common schedules, for a person whose primary income is derived from business operations | 1 | 2 | 3 | 4 | 5 |
| 47. Can establish and maintain accounts to record the purchase and sale of bonds, including the calculation of premiums and discounts | 1 | 2 | 3 | 4 | 5 |
| 48. Can establish and maintain accounts to record shareholder transactions for a corporation | 1 | 2 | 3 | 4 | 5 |
| 49. Understand and can describe the basic rights that accompany both common and preferred stock | 1 | 2 | 3 | 4 | 5 |
| 50. Can calculate equity per share of common and preferred stock | 1 | 2 | 3 | 4 | 5 |
| 51. Can maintain equity accounts for a partnership business | 1 | 2 | 3 | 4 | 5 |
| 52. Can calculate and account for interest receivable from installment sales or accounts receivable | 1 | 2 | 3 | 4 | 5 |

Circle only one number per skill.

| Skills | Performance Level: Cannot | Low | Average | Above Avg. | High |
|---|---|---|---|---|---|
| 53. Can establish and maintain a depreciation schedule for all depreciable assets | 1 | 2 | 3 | 4 | 5 |
| 54. Can calculate depreciation by the: | | | | | |
| a. straight line method | 1 | 2 | 3 | 4 | 5 |
| b. declining balance method | 1 | 2 | 3 | 4 | 5 |
| c. sum-of-the-years digits method | 1 | 2 | 3 | 4 | 5 |
| d. units of depreciation method | 1 | 2 | 3 | 4 | 5 |
| 55. Can calculate and record deferred or accrued income and expenses | 1 | 2 | 3 | 4 | 5 |
| 56. Can properly close revenue and expense accounts | 1 | 2 | 3 | 4 | 5 |
| 57. Can maintain the proper records for a perpetual inventory system | 1 | 2 | 3 | 4 | 5 |
| 58. Can calculate the value of inventory on the basis of the: | | | | | |
| a. L.I.F.O. method | 1 | 2 | 3 | 4 | 5 |
| b. F.I.F.O. method | 1 | 2 | 3 | 4 | 5 |
| c. retail method | 1 | 2 | 3 | 4 | 5 |
| 59. Understand and can describe the effect various inventory pricing systems will have on cost of goods sold | 1 | 2 | 3 | 4 | 5 |
| 60. Can properly prepare a cash flow and operations forecast, with a statement of assumptions | 1 | 2 | 3 | 4 | 5 |
| 61. Understands fiduciary accounting and can prepare fiduciary tax returns | 1 | 2 | 3 | 4 | 5 |
| 62. Can prepare consolidated financial statements for related multiple business | 1 | 2 | 3 | 4 | 5 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Please return the complete instrument in the enclosed postage-paid envelope, at your earliest convenience. Thank you for your efforts, they are most appreciated!

OCCUPATIONAL EXPERIENCE STUDY
PERSONAL DATA SHEET

Instructions:

This is the first of three sections in this instrument. It is designed to gather demographic data about the individual respondent. Please circle the appropriate number or enter data in the space provided. Necessary instructions are provided on each question. Please remember that your totally honest answers are most valuable to this research effort!

1. Sex (Circle number): 1 - Male 2 - Female

2. Your Age: _____ Years

3. Indicate the Vocational Service area in which you have primary teaching responsibility (Circle number):

   1 - Vocational Agriculture
   2 - Business and Office Education
   3 - Vocational Home Economics
   4 - Other _____

4. Indicate the occupational area in which you are currently employed as a vocational teacher (Circle number):

   1 - Production Agriculture
   2 - Ornamental Horticulture
   3 - Accounting and Computing
   4 - Data Processing
   5 - General Clerical
   6 - Steno-Secretarial
   7 - Consumer Homemaking
   8 - Food Service
   9 - Child Care/Development
   10 - Other _____

5. Indicate years of high school vocational training, received in the occupational area in which you are now teaching (Circle number):

   1 - None
   2 - 1 year
   3 - 2 years
   4 - 3 years
   5 - 4 years
   6 - _____years (Indicate No.)

6. Indicate number of years of formal education completed to date, beginning grade 1 (Circle number):

   1 - Less than 8 years
   2 - 9 years
   3 - 10 years
   4 - 11 years
   5 - 12 years
   6 - 13 years
   7 - 14 years
   8 - 15 years
   9 - 16 years
   10 - 17 years
   11 - 18 years
   12 - _____years (Indicate No.)

7. Indicate degree(s) completed to date and if completed in Colorado or out of State (Circle all appropriate numbers):

| | Completed In Colorado | Other State |
|---|---|---|
| 1 - High School | 1 | 2 |
| 2 - Associate (AS) | 1 | 2 |
| 3 - Baccalaureate (BS) | 1 | 2 |
| 4 - Masters (MS) | 1 | 2 |
| 5 - Doctorate (PhD) | 1 | 2 |
| 6 - Other _____ | 1 | 2 |

8. Where did you obtain your undergraduate teacher training? (Circle one number):

   1 - Adams State College
   2 - Colorado State University
   3 - Metropolitan State College
   4 - University of Colorado
   5 - Univ. of Northern Colorado
   6 - Univ. of Southern Colorado
   7 - Western State College
   8 - Other Colo. Schools_____
   9 - Another State

9. Indicate the total number of years employed in public school teaching, including this year.

   _____ (Years)

10. Indicate the number of years of full-time public school teaching in the vocational service area in which you are now teaching (include this year).

    _____ (Years)

Definition RELATED OCCUPATIONAL EXPERIENCE - "Practical" Industry experience (not teaching) with those technical subject matter competencies related to your area of vocational instruction.

11. Indicate the number of:

A. Months of full-time occupational experience related to your area of vocational instruction, prior to becoming a vocational teacher. _____ (Months)

B. Months of full-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Months)

C. Hours of part-time occupational experience related to your area of vocational instruction completed since becoming a vocational teacher. _____ (Hours)

D. Months of full-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Months)

E. Hours of part-time occupational experience related to your area of vocational instruction completed in the last 5 years. (Since January, 1971) _____ (Hours)

12. Indicate the month and year that you were last involved in related, full-time occupational experience which was 3 months or longer in duration. _____ (Month) _____ (Year)

13. In your opinion, how important is the instructor's related occupational experience to vocational program success? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

14. In your opinion, how many years of full-time occupational experience related to the area of vocational instruction should be required of teachers in your vocational service area? _____ (Years)

15. In your opinion, how important is recent occupational experience in maintaining subject matter competence in your vocational service area? (Circle the number which most nearly reflects your opinion) XXXXXXXXXXXXXXXX

10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1
Very Important Not Important

16. In your opinion, how often should a vocational instructor return to industry for update of related occupational experience? Every_____Years

Write below any comments you wish to add concerning occupational experience:

## TEACHER ATTITUDE SCALE

This is the second of three sections in this instrument. Below are several statements related to occupational experience of vocational teachers. Read each statement carefully and indicate the degree to which you agree or disagree, according to the following scale:

1 - Strongly Disagree - I strongly disagree with the statement.
2 - Disagree - I disagree with the statement, but not strongly so.
3 - Neutral - I am neutral toward the statement, or I just don't know enough about it.
4 - Agree - I agree with the statement, but not strongly so.
5 - Strongly Agree - I strongly agree with the statement.

CIRCLE only ONE response per line.

| As a vocational teacher, I believe that . . . . . | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 1. Recent occupational experience is vital in maintaining subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 2. Occupational experience unrelated to the area of vocational instruction is as valuable to vocational teachers as related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 3. Vocational teachers should have a minimum of five years of occupational experience related to the area of vocational instruction, prior to teaching. . . . . | 1 | 2 | 3 | 4 | 5 |
| 4. Of that occupational experience gained prior to teaching, part-time experience is as valuable as full-time experience, in development of subject matter competence. . . | 1 | 2 | 3 | 4 | 5 |
| 5. Teacher communication with related industry is directly dependent upon the vocational instructors' subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 6. Occupational experience, to be of value, must be both recent, and related to the area of occupational instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 7. The more recent the related occupational experience, the more valuable it is to the vocational teacher in providing relevant instruction. . . . . | 1 | 2 | 3 | 4 | 5 |
| 8. Full-time occupational experience related to the area of vocational instruction, is necessary for vocational instructors to gain subject matter competence . . . . . | 1 | 2 | 3 | 4 | 5 |
| 9. If the vocational teacher knows how to teach, he can acquire subject matter competence on the job . . . . . | 1 | 2 | 3 | 4 | 5 |
| 10. Recent, related occupational experience by vocational teachers is necessary for successful student placement. . . . . | 1 | 2 | 3 | 4 | 5 |
| 11. The more occupational experience, of any kind, that instructors have, the more competent they will be in their service area. . . . . | 1 | 2 | 3 | 4 | 5 |
| 12. All occupational experience is of equal value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |
| 13. Full-time occupational experience related to the area of occupational instruction should be required of all vocational teachers prior to teaching . . . . . | 1 | 2 | 3 | 4 | 5 |
| 14. One year of occupational experience related to the area of vocational instruction will provide sufficient subject matter competence to teach my occupational area . . . | 1 | 2 | 3 | 4 | 5 |
| 15. Teacher training course work is a better source of subject matter competencies than related occupational experience. . . . . | 1 | 2 | 3 | 4 | 5 |
| 16. Periodic, full-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 17. Related occupational experience is necessary for the vocational teacher to relate to the needs of industry for which he trains workers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 18. Periodic, part-time occupational experience related to the area of vocational instruction should be required of practicing vocational teachers. . . . . | 1 | 2 | 3 | 4 | 5 |
| 19. Successful student placement is dependent upon the subject matter competence of the vocational teacher. . . . . | 1 | 2 | 3 | 4 | 5 |
| 20. Effectiveness of the vocational teacher is directly related to subject matter competence. . . . . | 1 | 2 | 3 | 4 | 5 |
| 21. Occupational experience related to the area of vocational instruction is necessary to provide for successful student placement . . . . . | 1 | 2 | 3 | 4 | 5 |
| 22. Related occupational experience, more than five years past, is of little value to the vocational teacher . . . . . | 1 | 2 | 3 | 4 | 5 |

Circle only one number per skill.

| Skills | Performance Level: Cannot | Low | Average | Above Avg. | High |
|---|---|---|---|---|---|
| 23. Can properly apply electronic data processing techniques and equipment to such applications as preparing payroll, updating accounts receivable, and maintaining inventory | 1 | 2 | 3 | 4 | 5 |
| 24. Can program in a given computer language (i.e., COBOL, FORTRAN, RPG, BASIC, ALGOL, PLI, APL) | 1 | 2 | 3 | 4 | 5 |
| 25. Can properly design card layout using card fields | 1 | 2 | 3 | 4 | 5 |
| 26. Understands and can accurately complete activities to program the computer including: | | | | | |
| a. analyzing the problem | 1 | 2 | 3 | 4 | 5 |
| b. planning the program | 1 | 2 | 3 | 4 | 5 |
| c. coding the instructions | 1 | 2 | 3 | 4 | 5 |
| d. debugging the program | 1 | 2 | 3 | 4 | 5 |
| e. documenting the program | 1 | 2 | 3 | 4 | 5 |
| 27. Can identify and describe the basic methods of processing data: manual, mechanical, punched-card, and electronic | 1 | 2 | 3 | 4 | 5 |
| 28. Can flow chart the 3-level total problem while updating a disc file | 1 | 2 | 3 | 4 | 5 |
| 29. Understands the function of and can use job control instructions for a computer | 1 | 2 | 3 | 4 | 5 |
| 30. Can use standard utility programs | 1 | 2 | 3 | 4 | 5 |
| 31. Can use debugging tools; such as dumps to correct errors in the program | 1 | 2 | 3 | 4 | 5 |
| 32. Understand the concept and can describe the function of virtual storage | 1 | 2 | 3 | 4 | 5 |
| 33. Understand and can apply the concepts of multi-programming | 1 | 2 | 3 | 4 | 5 |
| 34. Can identify and describe the function of file processing techniques; such as, sequential, index sequential, and random access files | 1 | 2 | 3 | 4 | 5 |
| 35. Understands and can apply the basic concepts of operating systems and their use and function | 1 | 2 | 3 | 4 | 5 |
| 36. Can describe the difference between real time and batch processing operations | 1 | 2 | 3 | 4 | 5 |
| 37. Can write programs to create an up-date sequential, indexed sequential, and random files | 1 | 2 | 3 | 4 | 5 |
| 38. Can accurately operate commonly used input equipment, control processing equipment, and output equipment for electronic data processing | 1 | 2 | 3 | 4 | 5 |
| 39. Can properly operate punch tape producing and tape driven machines | 1 | 2 | 3 | 4 | 5 |
| 40. Can operate a computer console | 1 | 2 | 3 | 4 | 5 |
| 41. Can communicate with the operating system through operator commands | 1 | 2 | 3 | 4 | 5 |
| 42. Can maintain a run log | 1 | 2 | 3 | 4 | 5 |
| 43. Can properly use and store data processing software; such as, magnetic disc packs, magnetic tape reels, cassettes, and paper tape | 1 | 2 | 3 | 4 | 5 |
| 44. Can interpret and explain a program card used for a specific problem | 1 | 2 | 3 | 4 | 5 |
| 45. Understands and can apply concepts of parallel and distributed processing | 1 | 2 | 3 | 4 | 5 |
| 46. Knows when and how to use various computer terminals (intelligent, non-intelligent) | 1 | 2 | 3 | 4 | 5 |

You have completed the survey. Please quickly recheck the instrument to make certain that your response is recorded on each item. Please return the complete instrument in the enclosed postage-paid envelope, at your earliest convenience. Thank you for your efforts, they are most appreciated!

# APPENDIX B

Instrument Review

Instrument Review
LCVTC -- Staff
3/16/76

INSTRUCTIONS: For Completing Review of Occupational Experience Instrument

1. Remember the purpose:

   A. To help CSU determine if the instrument will gather the desired information.

   B. To point out any inaccuracies in the instrument or questions which lack clarity.

2. Complete the instrument appropriate to your occupational area of instruction: The instrument includes three sections:

   A. Demographic Section

   B. Attitude Scale Section

   C. Technical Competence Self Evaluation Section

Complete all requested responses in each section.

3. While completing the instrument note any inaccuracies (misspelled words etc.), or statements which are not clear to you, on the sheet provided.

4. Do not identify yourself on the survey instrument or the review sheet.

INSTRUCTIONS: For Completing Competency Selection Instrument

1. Remember the purpose:

   We are attempting to identify those job skills (competencies) which will tend to reflect the greatest degree of competence (ability) in each occupational area.

2. Review the attached "Response Code Definitions" to be used in responding to each competency listed.

3. Rank all listed competencies using the above five point scale. Circle only one number for each competency. Choose that number which most nearly reflects your feelings about that competency.

4. We encourage you to alter the wording of competencies which are incorrectly stated or which could be stated more clearly. Please note such alterations directly above the competency or on the back of the page.

5. Please do not discuss any competency with your fellow committee members while completing the instrument. We desire your valuable individual opinions rather than a concensus of the group. If you have questions I will be happy to provide individual assistance.

6. PLEASE NOTE - - - VERY IMPORTANT!

   You are very close to the industry which provides jobs for the occupational areas represented here. Please help us by completing the last section of the instrument--which requests that you write in other competencies which we have missed! Please add any other competencies which you feel would fall n the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. Please consider those competencies that you most like to see in employees in this occupational area. Only with your help can we compile a complete listing of those "high quality" competencies.

7. Please be sure to place your name in the upper right-hand corner of the front page of each instrument.

Thank you for your valuable assistance!

RESPONSE CODE DEFINITIONS:

| Response Code | Definition |
|---|---|
| 1 | This skill reflects the highest level of competence in the occupational area. |
| 2 | This skill reflects an above average level of competence in the occupational area. |
| 3 | This skill reflects an average level of competence in the occupational area. |
| 4 | This skill reflects a low level of competence in the occupational area. |
| 5 | This skill does not reflect competence in the occupational area. (Column headed none). |

The underlined words in each definition are used to head the appropriate number column on the competency listing. Please circle that number most representative of your feelings about the competency. Circle only one number per competency.

OCCUPATIONAL EXPERIENCE STUDY

Survey Instrument Review

Please complete the appropriate instrument for your area of occupational instruction. As you proceed through the instrument please indicate any errors, and their location, in the space provided below. Any suggestions that you may have for improvement of the instrument would be appreciated.

| Demo | Att | Comp | Comments |
|---|---|---|---|
| | | | |

Thank You for your valuable assistance!

# APPENDIX C

Competency Lists

Your Name_____

AGRICULTURAL PRODUCTION OCCUPATIONS
(01.0100)

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Average | Average | Low | None |
|---|---|---|---|---|---|
| 1. Identify in the field the important breeds of livestock in the community. | 1 | 2 | 3 | 4 | 5 |
| 2. Identify the various body parts of animals | 1 | 2 | 3 | 4 | 5 |
| 3. Select livestock, in accordance with breeding and marketing standards | 1 | 2 | 3 | 4 | 5 |
| 4. Determine the nutrient requirements of various types of livestock found in the community | 1 | 2 | 3 | 4 | 5 |
| 5. Explain the information given on feed bag tags | 1 | 2 | 3 | 4 | 5 |
| 6. Design a balanced least cost balanced ration for common farm animals, using local feeds and prices. | 1 | 2 | 3 | 4 | 5 |
| 7. Use a chart for determining gestation and heat periods for farm animals | 1 | 2 | 3 | 4 | 5 |
| 8. Plan a livestock improvement program for a type of livestock in the community; specify breed, schedules for breeding, sire-dam ratio, culling program indicating standards | 1 | 2 | 3 | 4 | 5 |
| 9. Analyze progeny records for such things as: | | | | | |
| a. pounds of gain per pound of feed | 1 | 2 | 3 | 4 | 5 |
| b. average daily weight gain | 1 | 2 | 3 | 4 | 5 |
| c. carcass yield and quality | 1 | 2 | 3 | 4 | 5 |
| d. cost per pound of gain | 1 | 2 | 3 | 4 | 5 |
| 10. Design a program to promote good health and safety of farm animals | 1 | 2 | 3 | 4 | 5 |
| 11. Recognize and treat parasite infestations | 1 | 2 | 3 | 4 | 5 |
| 12. Recognize common livestock diseases and health problems | 1 | 2 | 3 | 4 | 5 |
| 13. Prepare livestock, crops, etc. for exhibit at fairs and shows | 1 | 2 | 3 | 4 | 5 |
| 14. Plan a calendar of events for a specific class of livestock covering breeding, feeding, and management during one production cycle | 1 | 2 | 3 | 4 | 5 |
| 15. Analyze production records to determine if management practices were profitable | 1 | 2 | 3 | 4 | 5 |
| 16. Analyze management practices for possible improvements to increase profits | 1 | 2 | 3 | 4 | 5 |
| 17. Perform common livestock practices such as: | | | | | |
| a. castrating | 1 | 2 | 3 | 4 | 5 |
| b. dehorning | 1 | 2 | 3 | 4 | 5 |
| c. hoof trimming | 1 | 2 | 3 | 4 | 5 |
| d. giving infections | 1 | 2 | 3 | 4 | 5 |

## AGRICULTURAL PRODUCTION

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 17. Perform common livestock practices such as: (cond't) | | | | | |
| e. docking | 1 | 2 | 3 | 4 | 5 |
| f. shearing | 1 | 2 | 3 | 4 | 5 |
| g. weaning | 1 | 2 | 3 | 4 | 5 |
| h. branding | 1 | 2 | 3 | 4 | 5 |
| i. treat for bloat | 1 | 2 | 3 | 4 | 5 |
| j. herd or drive animals | 1 | 2 | 3 | 4 | 5 |
| 18. Interpret market reports in newspaper and official reporting services | 1 | 2 | 3 | 4 | 5 |
| 19. Determine market grades of livestock and crops | 1 | 2 | 3 | 4 | 5 |
| 20. Identify the major cuts of meat | 1 | 2 | 3 | 4 | 5 |
| 21. Compile a list of marketing agencies in the community, noting advantages and disadvantages of each | 1 | 2 | 3 | 4 | 5 |
| 22. Determine soil texture by feel | 1 | 2 | 3 | 4 | 5 |
| 23. Identify horizons in soil profile | 1 | 2 | 3 | 4 | 5 |
| 24. Identify a plowpan, hardpan, and/or clay pan | 1 | 2 | 3 | 4 | 5 |
| 25. Determine when a soil is ready to till | 1 | 2 | 3 | 4 | 5 |
| 26. Read a soil map. | 1 | 2 | 3 | 4 | 5 |
| 27. Determine water holding capacity of various soils | 1 | 2 | 3 | 4 | 5 |
| 28. Determine slope | 1 | 2 | 3 | 4 | 5 |
| 29. Determine land use and capability of typical soils in the community | 1 | 2 | 3 | 4 | 5 |
| 30. Test soil sample to determine acidity or alkalinity | 1 | 2 | 3 | 4 | 5 |
| 31. Take soil sample and send to soils lab for analysis | 1 | 2 | 3 | 4 | 5 |
| 32. Make decisions concerning use of fertilizers and soil amendments based upon results of soil tests | 1 | 2 | 3 | 4 | 5 |
| 33. Determine presence of organic matter in soils | 1 | 2 | 3 | 4 | 5 |
| 34. Read labels and analyze fertilizers on the market | 1 | 2 | 3 | 4 | 5 |
| 35. Compute the cost of fertilizing a crop using various materials purchased from local sources | 1 | 2 | 3 | 4 | 5 |
| 36. Plan a soil improvement program for a specific crop after having the soil tested and reviewing the recommendations | 1 | 2 | 3 | 4 | 5 |
| 37. Apply fertilizer to a crop using acceptable methods, recommended rates, and at the proper time | 1 | 2 | 3 | 4 | 5 |
| 38. Plan soil drainage systems | 1 | 2 | 3 | 4 | 5 |
| 39. Operate farm level and surveying equipment | 1 | 2 | 3 | 4 | 5 |
| 40. Layout a contour line after determining the slope of a field | 1 | 2 | 3 | 4 | 5 |
| 41. Irrigate and determine the frequency of irrigation for profitable crop production | 1 | 2 | 3 | 4 | 5 |
| 42. Work with Soil Conservation Service in planning irrigation and drainage needs | 1 | 2 | 3 | 4 | 5 |
| 43. Calculate application rates of fertilizer for a specific crop | 1 | 2 | 3 | 4 | 5 |
| 44. Identify nutrient deficiency signs in crops | 1 | 2 | 3 | 4 | 5 |
| 45. Identify common noxious weeds in the community | 1 | 2 | 3 | 4 | 5 |

## AGRICULTURAL PRODUCTION

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 46. Plan and carry out a rodent control program in the community, or on the home farm | 1 | 2 | 3 | 4 | 5 |
| 47. Determine correct applications and safety measures for a weed control program | 1 | 2 | 3 | 4 | 5 |
| 48. Compare the cost of various chemicals designed to accomplish like purposes | 1 | 2 | 3 | 4 | 5 |
| 49. Interpret the meaning of labels found on chemical and pesticide containers | 1 | 2 | 3 | 4 | 5 |
| 50. Prune shrubs or trees to remove damaged portions | 1 | 2 | 3 | 4 | 5 |
| 51. Plan a crop management program in the community for a major crop, from seedbed preparation to harvesting | 1 | 2 | 3 | 4 | 5 |
| 52. Identify both seeds and plants of major crops grown in the community | 1 | 2 | 3 | 4 | 5 |
| 53. Select good quality livestock feedstuffs | 1 | 2 | 3 | 4 | 5 |
| 54. Classify forage plants according to legume or grasses and as annual, biennial, or perennial | 1 | 2 | 3 | 4 | 5 |
| 55. Develop maintenance schedules for common equipment using service manual | 1 | 2 | 3 | 4 | 5 |
| 56. Carry out a maintenance program on farm implements in a safe and workmanlike manner | 1 | 2 | 3 | 4 | 5 |
| 57. Plan and conduct a winterizing program for farm equipment. | 1 | 2 | 3 | 4 | 5 |
| 58. Safely and properly operate the following equipment in the field: tractor, tillage implement, seeding or fertilizing implement, and harvesting implement | 1 | 2 | 3 | 4 | 5 |
| 59. Calibrate or adjust common farm implements | 1 | 2 | 3 | 4 | 5 |
| 60. Recondition and return to proper working order common farm implements | 1 | 2 | 3 | 4 | 5 |
| 61. Select a pump for a home water or irrigation system | 1 | 2 | 3 | 4 | 5 |
| 62. Make carburetion, governor, and ignition adustments for proper operation of both four- and two-cycle engines | 1 | 2 | 3 | 4 | 5 |
| 63. Store various fuels safely | 1 | 2 | 3 | 4 | 5 |
| 64. Safely operate a tractor under various loads in both field and road conditions | 1 | 2 | 3 | 4 | 5 |
| 65. Plan an electrical system showing location of switches, outlets, ground fixtures, etc. | 1 | 2 | 3 | 4 | 5 |
| 66. Install electrical circuits according to code requirements | 1 | 2 | 3 | 4 | 5 |
| 67. Service an electric motor | 1 | 2 | 3 | 4 | 5 |
| 68. Select and install an electric motor with belt and pulleys | 1 | 2 | 3 | 4 | 5 |
| 69. Reverse the direction of an electric motor | 1 | 2 | 3 | 4 | 5 |
| 70. Service electrical circuits | 1 | 2 | 3 | 4 | 5 |
| 71. Identify common building materials, including lumber, nails, hardware items, and fencing materials | 1 | 2 | 3 | 4 | 5 |
| 72. Figure a bill of materials and compute its cost from a farm building plan | 1 | 2 | 3 | 4 | 5 |
| 73. Plan and carry out a building maintenance and improvement program | 1 | 2 | 3 | 4 | 5 |

## AGRICULTURAL PRODUCTION

| | Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|---|
| 74. | Using a farm level, lay out a building foundation complete with batten boards | 1 | 2 | 3 | 4 | 5 |
| 75. | Properly select and use both hand and power tools | 1 | 2 | 3 | 4 | 5 |
| 76. | Sharpen various cutting tools | 1 | 2 | 3 | 4 | 5 |
| 77. | Lay out and erect fences | 1 | 2 | 3 | 4 | 5 |
| 78. | Select a paint or preservative, prepare the surface, and apply paint | 1 | 2 | 3 | 4 | 5 |
| 79. | Compute storage volumes of barns, silos, bins, and concrete jobs | 1 | 2 | 3 | 4 | 5 |
| 80. | Properly care for and maintain the home disposal system | 1 | 2 | 3 | 4 | 5 |
| 81. | Construct farm buildings | 1 | 2 | 3 | 4 | 5 |
| 82. | Select electrodes for various welding jobs | 1 | 2 | 3 | 4 | 5 |
| 83. | Demonstrate proper welding technique for different kinds of welds from various welding positions | 1 | 2 | 3 | 4 | 5 |
| 84. | Demonstrate the proper technique in using the oxyacetylene equipment in cutting, brazing, and mild steel welding | 1 | 2 | 3 | 4 | 5 |
| 85. | Select a plan and construct farm implements | 1 | 2 | 3 | 4 | 5 |
| 86. | Select pipe, fittings, measure, mark, cut, ream, and thread pipe | 1 | 2 | 3 | 4 | 5 |
| 87. | Repair and maintain water system | 1 | 2 | 3 | 4 | 5 |
| 88. | Select, measure, mark, cut, and splice plastic pipe | 1 | 2 | 3 | 4 | 5 |
| 89. | Couple remote hydraulic cylinder according to needs | 1 | 2 | 3 | 4 | 5 |
| 90. | Select hydraulic remote cylinder according to needs | 1 | 2 | 3 | 4 | 5 |
| 91. | Maintain hydraulic systems | 1 | 2 | 3 | 4 | 5 |
| 92. | Interpret Nebraska Tractor Test Reports as an aid in tractor selection | 1 | 2 | 3 | 4 | 5 |
| 93. | Select farm equipment on the basis of needs, price, and available service | 1 | 2 | 3 | 4 | 5 |
| 94. | Participate in civic affairs as an informed member of the community | 1 | 2 | 3 | 4 | 5 |
| 95. | Present and expand personal views logically and concisely to individuals or groups | 1 | 2 | 3 | 4 | 5 |
| 96. | Properly use parliamentary procedure to participate in making a decision through use of motions and discussion | 1 | 2 | 3 | 4 | 5 |
| 97. | Organize and develop an agenda for a business meeting | 1 | 2 | 3 | 4 | 5 |
| 98. | Chair an orderly business meeting | 1 | 2 | 3 | 4 | 5 |
| 99. | Establish and maintain an accurate record system for: | | | | | |
| | a. production records | 1 | 2 | 3 | 4 | 5 |
| | b. breeding records | 1 | 2 | 3 | 4 | 5 |
| | c. machinery maintenance records | 1 | 2 | 3 | 4 | 5 |
| | d. tax records | 1 | 2 | 3 | 4 | 5 |
| 100. | Develop a farm lease | 1 | 2 | 3 | 4 | 5 |
| 101. | Establish a calendar of job operations for common farm enterprises | 1 | 2 | 3 | 4 | 5 |
| 102. | Prepare a budget for common farm enterprises | 1 | 2 | 3 | 4 | 5 |
| 103. | Analyse needs and purchase adequate insurance coverages | 1 | 2 | 3 | 4 | 5 |

## AGRICULTURAL PRODUCTION

| | Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|---|
| 104. | Complete federal and state income tax forms | 1 | 2 | 3 | 4 | 5 |
| 105. | Compute property taxes on home farm from assessments made by the county assessor | 1 | 2 | 3 | 4 | 5 |
| 106. | Compute depreciation, interests, and discounts | 1 | 2 | 3 | 4 | 5 |
| 107. | Write and interpret written contracts, and evaluate them on the basis of equitable rights and obligations | 1 | 2 | 3 | 4 | 5 |
| 108. | Properly reconcile a bank statement | 1 | 2 | 3 | 4 | 5 |
| 109. | Compute and compare the interest rates charged by various merchants and lending institutions in the community | 1 | 2 | 3 | 4 | 5 |
| 110. | Fill out a loan application | 1 | 2 | 3 | 4 | 5 |
| 111. | Identify forms of credit and possible lending agencies available to the farmer | 1 | 2 | 3 | 4 | 5 |
| 112. | Analyze farm enterprises in terms of profit or loss | 1 | 2 | 3 | 4 | 5 |
| 113. | Develop a crop rotation system | 1 | 2 | 3 | 4 | 5 |
| 114. | Apply the decision-making process, using established budgeting criteria to make management decisions | 1 | 2 | 3 | 4 | 5 |
| 115. | Using established criteria determine a fair price for land | 1 | 2 | 3 | 4 | 5 |
| 116. | Identify those farm organizations active in the local community | 1 | 2 | 3 | 4 | 5 |
| 117. | Complete forms for participation in various government programs | 1 | 2 | 3 | 4 | 5 |
| 118. | Compute the yield, value of product, cost of production for crops and livestock enterprises | 1 | 2 | 3 | 4 | 5 |
| 119. | Compare costs of doing business through a cooperative with other businesses | 1 | 2 | 3 | 4 | 5 |
| 120. | Establish criteria and evaluate local community agriculture occupations in terms of opportunities | 1 | 2 | 3 | 4 | 5 |
| 121. | Prepare a personal data sheet to include: | | | | | |
| | a. personal information | 1 | 2 | 3 | 4 | 5 |
| | b. job objective | 1 | 2 | 3 | 4 | 5 |
| | c. education | 1 | 2 | 3 | 4 | 5 |
| | d. work experience | 1 | 2 | 3 | 4 | 5 |
| | e. references | 1 | 2 | 3 | 4 | 5 |
| 122. | Correctly fill out an application for employment | 1 | 2 | 3 | 4 | 5 |
| 123. | Write a letter of application | 1 | 2 | 3 | 4 | 5 |

## AGRICULTURAL PRODUCTION

Please write below any other competencies (skills) which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. In the column at the right please indicate by number the competence level of each skill.

| Competence Level | | | | |
|---|---|---|---|---|
| Highest | Above Avg. | Average | Low | None |

Thank you for your assistance!

Name _____

ORNAMENTAL HORTICULTURE OCCUPATIONS
(01.0500)

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Average | Average | Low | None |
|---|---|---|---|---|---|
| 1. Identify common plant materials: | | | | | |
| a. flowers | 1 | 2 | 3 | 4 | 5 |
| b. turf, grasses | 1 | 2 | 3 | 4 | 5 |
| c. shrubs | 1 | 2 | 3 | 4 | 5 |
| d. trees | 1 | 2 | 3 | 4 | 5 |
| 2. Identify and select plants for production, based upon market demand | 1 | 2 | 3 | 4 | 5 |
| 3. Prepare growing media for each type of plant, to be produced | 1 | 2 | 3 | 4 | 5 |
| 4. Prepare rooting media | 1 | 2 | 3 | 4 | 5 |
| 5. Start plants from seeds, bulbs and tubers | 1 | 2 | 3 | 4 | 5 |
| 6. Propagate plants from cuttings and layerage | 1 | 2 | 3 | 4 | 5 |
| 7. Maintain parent stock | 1 | 2 | 3 | 4 | 5 |
| 8. Determine moisture needs of plants | 1 | 2 | 3 | 4 | 5 |
| 9. Fertilize plants based on need as determined by soil test | 1 | 2 | 3 | 4 | 5 |
| 10. Take soil samples and interpret soil test results | 1 | 2 | 3 | 4 | 5 |
| 11. Properly regulate greenhouse environment including: | | | | | |
| a. temperature | 1 | 2 | 3 | 4 | 5 |
| b. light | 1 | 2 | 3 | 4 | 5 |
| c. humidity | 1 | 2 | 3 | 4 | 5 |
| 12. Identify common plant pests (weeds) | 1 | 2 | 3 | 4 | 5 |
| 13. Apply spray, smoke, and fog to control plant pests | 1 | 2 | 3 | 4 | 5 |
| 14. Pot and transplant various sizes of plants | 1 | 2 | 3 | 4 | 5 |
| 15. Disbud, cut, and grade flowers | 1 | 2 | 3 | 4 | 5 |
| 16. Regulate plant growth through use of chemicals | 1 | 2 | 3 | 4 | 5 |
| 17. Safely operate and conduct routine maintenance on such equipment as: | | | | | |
| a. small tractors | 1 | 2 | 3 | 4 | 5 |
| b. rototiller | 1 | 2 | 3 | 4 | 5 |
| c. loader | 1 | 2 | 3 | 4 | 5 |
| d. soil shredder | 1 | 2 | 3 | 4 | 5 |
| e. spray equipment | 1 | 2 | 3 | 4 | 5 |
| f. mowers | 1 | 2 | 3 | 4 | 5 |
| g. sodcutter | 1 | 2 | 3 | 4 | 5 |
| h. chainsaw | 1 | 2 | 3 | 4 | 5 |
| i. small trencher | 1 | 2 | 3 | 4 | 5 |
| j. areator and thatcher | 1 | 2 | 3 | 4 | 5 |
| k. light duty trucks | 1 | 2 | 3 | 4 | 5 |

ORNAMENTAL HORTICULTURE

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 18. Properly calibrate such equipment as: | | | | | |
| a. sprayers | 1 | 2 | 3 | 4 | 5 |
| b. fertilizer spreaders | 1 | 2 | 3 | 4 | 5 |
| c. seeding equipment | 1 | 2 | 3 | 4 | 5 |
| 19. Make routine plumbing and electrical repairs | 1 | 2 | 3 | 4 | 5 |
| 20. Read and properly interpret schematic drawings and blueprint | 1 | 2 | 3 | 4 | 5 |
| 21. Construct and install simple structures such as fences, decks, paths and patios | 1 | 2 | 3 | 4 | 5 |
| 22. Design floral arrangements | 1 | 2 | 3 | 4 | 5 |
| 23. Prepare floral arrangements for weddings, funerals and commercial display | 1 | 2 | 3 | 4 | 5 |
| 24. Cut and recondition flowers | 1 | 2 | 3 | 4 | 5 |
| 25. Package plants and flower arrangements according to special characteristics of plant materials | 1 | 2 | 3 | 4 | 5 |
| 26. Design and arrange artificial flowers | 1 | 2 | 3 | 4 | 5 |
| 27. Give correct advice on plant care | 1 | 2 | 3 | 4 | 5 |
| 28. Sell plants and complete related business transactions | 1 | 2 | 3 | 4 | 5 |
| 29. Establish and properly maintain such business records as: | | | | | |
| a. production records | 1 | 2 | 3 | 4 | 5 |
| b. inventory records | 1 | 2 | 3 | 4 | 5 |
| c. sales records | 1 | 2 | 3 | 4 | 5 |
| d. equipment maintenance records | 1 | 2 | 3 | 4 | 5 |
| e. tax records | 1 | 2 | 3 | 4 | 5 |
| 30. Investigate available sources of credit and make credit arrangements | 1 | 2 | 3 | 4 | 5 |
| 31. Properly prepare a budget for horticulture enterprises | 1 | 2 | 3 | 4 | 5 |
| 32. Properly complete state and federal tax forms | 1 | 2 | 3 | 4 | 5 |
| 33. Estimate types of flowers and plants to be used for special occasions according to records | 1 | 2 | 3 | 4 | 5 |
| 34. Rotate stock being displayed for sale | 1 | 2 | 3 | 4 | 5 |
| 35. Deliver merchandise by motor vehicle | 1 | 2 | 3 | 4 | 5 |
| 36. Take merchandise orders, transfer orders by phone or wire service | 1 | 2 | 3 | 4 | 5 |
| 37. Produce and wholesale horticultural plant materials | 1 | 2 | 3 | 4 | 5 |
| 38. Retail diversified stock, (flowers, plants, ceramics), or (seed, shrubs, lawn equipment) | 1 | 2 | 3 | 4 | 5 |
| 39. Shape trees and shrubs for growth and beauty | 1 | 2 | 3 | 4 | 5 |
| 40. Properly graft fruit tree stock | 1 | 2 | 3 | 4 | 5 |
| 41. Prune fruit trees for production | 1 | 2 | 3 | 4 | 5 |
| 42. Recognize problems arising from insects, rodents, and diseases | 1 | 2 | 3 | 4 | 5 |
| 43. Determine and properly apply control measures for insects, rodents, and diseases | 1 | 2 | 3 | 4 | 5 |
| 44. Identify and correct soil drainage problems | 1 | 2 | 3 | 4 | 5 |
| 45. Plan, install, and operate watering systems | 1 | 2 | 3 | 4 | 5 |
| 46. Ball and wrap plants | 1 | 2 | 3 | 4 | 5 |
| 47. Grade plants according to quality | 1 | 2 | 3 | 4 | 5 |

ORNAMENTAL HORTICULTURE — Competence Level

Skills or Competencies

| | | | | | | |
|---|---|---|---|---|---|---|
| 48. | Plan, and construct plant growing structures including: plumbing, electrical, carpentry and concrete | 1 | 2 | 3 | 4 | 5 |
| 49. | Repair and maintain plant growing structures including: plumbing, electrical, carpentry, and concrete | 1 | 2 | 3 | 4 | 5 |
| 50. | Plant and maintain turf | 1 | 2 | 3 | 4 | 5 |
| 51. | Install and maintain turf | 1 | 2 | 3 | 4 | 5 |
| 52. | Level and grade land with motorized equipment and by hand | 1 | 2 | 3 | 4 | 5 |
| 53. | Condition soils: apply bark dust, peat moss, sand, loamite, etc. | 1 | 2 | 3 | 4 | 5 |
| 54. | Identify and properly install plants according to a landscape plan | 1 | 2 | 3 | 4 | 5 |
| 55. | Identify and install landscape complements according to a landscape plan; aggregate, river rock, large rocks, gravel, etc. | 1 | 2 | 3 | 4 | 5 |
| 56. | Install edging materials to contain soil, aggregate and turf | 1 | 2 | 3 | 4 | 5 |
| 57. | Remove old shrubs and trees using winch, etc. | 1 | 2 | 3 | 4 | 5 |
| 58. | Determine drift hazard for spraying. | 1 | 2 | 3 | 4 | 5 |
| 59. | Estimate cost of landscape jobs | 1 | 2 | 3 | 4 | 5 |
| 60. | Develop a plot plan for landscaping. | 1 | 2 | 3 | 4 | 5 |
| 61. | Develop detailed landscape design plans | 1 | 2 | 3 | 4 | 5 |
| 62. | Conduct aerating and thatching operations on turf | 1 | 2 | 3 | 4 | 5 |
| 63. | Clean and sterilize greenhouse prior to use | 1 | 2 | 3 | 4 | 5 |
| 64. | Maintain a completed landscape | 1 | 2 | 3 | 4 | 5 |
| 65. | Transplant mature shrubs and trees | 1 | 2 | 3 | 4 | 5 |
| 66. | Stratify and treat seed | 1 | 2 | 3 | 4 | 5 |
| 67. | Select plant materials for specific purpose | 1 | 2 | 3 | 4 | 5 |
| 68. | Sterilize soil | 1 | 2 | 3 | 4 | 5 |
| 69. | Prepare soil mixtures | 1 | 2 | 3 | 4 | 5 |
| 70. | Prepare seedbeds | 1 | 2 | 3 | 4 | 5 |
| 71. | Read and properly interpret chemical and fertilizer labels | 1 | 2 | 3 | 4 | 5 |
| 72. | Determine proper application rates for chemicals and fertilizers | 1 | 2 | 3 | 4 | 5 |
| 73. | Operate and maintain a shade house | 1 | 2 | 3 | 4 | 5 |

## ORNAMENTAL HORTICULTURE

Please write below any other competencies (skills) which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. In the column at the right please indicate by number the competence level of each skill.

| Competence Level | | | | |
|---|---|---|---|---|
| Highest | Above Avg. | Average | Low | None |
| 1 | 2 | 3 | 4 | 5 |

Thank you for your assistance!

STENOGRAPHIC AND SECRETARIAL OCCUPATIONS

INSTRUCTIONS: For Completing Competency Selection Instrument

1. Remember the purpose:

   We are attempting to identify those industry skills (competencies) which will tend to reflect the greatest degree of competence (ability) in stenographic and secretarial occupations.

   This competency list will be used to allow teachers to assess their ability in current industry skills.

2. Review the attached "Response Code Definitions" to be used in responding to each competency listed.

3. Rank all listed competencies using the above five point scale. Circle only one number for each competency. Choose that number which most nearly reflects your feelings about that competency.

4. We encourage you to alter the wording of competencies which are incorrectly stated or which could be stated more clearly. Please note such alterations directly above the competency or on the back of the page.

5. PLEASE NOTE - - - VERY IMPORTANT!

   You are very close to the industry which provides jobs for the stenographic and secretarial occupations. Please help us by completing the last section of the instrument--which requests that you write in other competencies which we have missed! Please add any other competencies which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. Please consider those competencies that you most like to see in employees in this occupational area. Only with your help can we compile a complete listing of those "high ability" competencies.

6. Please be sure to place your name in the upper right-hand corner of the front page of the instrument.

Thank you for your valuable assistance!

RESPONSE CODE DEFINITIONS:

| Response Code | Definition |
|---|---|
| 1 | This skill reflects the highest level of competence in the occupational area. |
| 2 | This skill reflects an above average level of competence in the occupational area. |
| 3 | This skill reflects an average level of competence in the occupational area. |
| 4 | This skill reflects a low level of competence in the occupational area. |
| 5 | This skill does not reflect competence in the occupational area. (Column headed none). |

The underlined words in each definition are used to head the appropriate number column on the competency listing. Please circle that number most representative of your feelings about the competency. Circle only one number per competency.

Your Name _____

STENOGRAPHIC AND SECRETARIAL OCCUPATIONS
(14.0700)

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 1. Exchanges oral and written information efficiently and accurately with: | | | | | |
| a. persons outside the company | 1 | 2 | 3 | 4 | 5 |
| b. company personnel | 1 | 2 | 3 | 4 | 5 |
| 2. Interacts and works in harmony with other office workers toward a specific accomplishment or goal | 1 | 2 | 3 | 4 | 5 |
| 3. Can properly place outgoing telephone calls | 1 | 2 | 3 | 4 | 5 |
| 4. Can effectively refer inquiries to others | 1 | 2 | 3 | 4 | 5 |
| 5. Can discuss job related procedures and problems with supervisor or others who are affected by those procedures | 1 | 2 | 3 | 4 | 5 |
| 6. Can arrange and type mailable business letters | 1 | 2 | 3 | 4 | 5 |
| 7. Takes the initiative in anticipating what needs to be done | 1 | 2 | 3 | 4 | 5 |
| 8. Can type single and multiple carbon copies efficiently | 1 | 2 | 3 | 4 | 5 |
| 9. Demonstrates the ability to cope with pressures of simultaneous tasks and contacts | 1 | 2 | 3 | 4 | 5 |
| 10. Demonstrates a knowledge of company policy and priorities | 1 | 2 | 3 | 4 | 5 |
| 11. Can accurately transcribe on the typewriter from machine dictation at high production speed | 1 | 2 | 3 | 4 | 5 |
| 12. Has the ability: | | | | | |
| a. to cope with verbal abuse | 1 | 2 | 3 | 4 | 5 |
| b. to calm difficult persons | 1 | 2 | 3 | 4 | 5 |
| 13. Can take minutes at business meetings and properly formalize those minutes | 1 | 2 | 3 | 4 | 5 |
| 14. Can exercise judgment and discretion | 1 | 2 | 3 | 4 | 5 |
| 15. Can use good diction | 1 | 2 | 3 | 4 | 5 |
| 16. Demonstrates the ability to explain the same thing in different ways | 1 | 2 | 3 | 4 | 5 |
| 17. Can properly index and code materials for filing | 1 | 2 | 3 | 4 | 5 |
| 18. Can type a variety of letter styles | 1 | 2 | 3 | 4 | 5 |
| 19. Can efficiently process departmental incoming mail | | | | | |
| a. open and date mail | 1 | 2 | 3 | 4 | 5 |
| b. attach related materials | 1 | 2 | 3 | 4 | 5 |
| c. refer and route mail received | 1 | 2 | 3 | 4 | 5 |
| 20. Can keep work organized while coping with interruptions | 1 | 2 | 3 | 4 | 5 |

## STENOGRAPHIC AND SECRETARIAL OCCUPATIONS

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 21. Can provide assistance in maintaining appointment or business schedules | 1 | 2 | 3 | 4 | 5 |
| 22. Can proofread and accurately correct all final copy | 1 | 2 | 3 | 4 | 5 |
| 23. Demonstrates resourcefulness in searching for filed materials | 1 | 2 | 3 | 4 | 5 |
| 24. Can efficiently operate special telephone equipment; such as, six-button, multiple line equipment | 1 | 2 | 3 | 4 | 5 |
| 25. Can record meaningful messages | 1 | 2 | 3 | 4 | 5 |
| 26. Can make screening decisions--in person or by phone | 1 | 2 | 3 | 4 | 5 |
| 27. Can demonstrate effective communication skills--oral and written | 1 | 2 | 3 | 4 | 5 |
| 28. Possesses a knowledge of job, personnel, and department functions | 1 | 2 | 3 | 4 | 5 |
| 29. Can properly process outgoing mail | 1 | 2 | 3 | 4 | 5 |
| 30. Can properly operate copy machines including electrostatic (Xerox). | 1 | 2 | 3 | 4 | 5 |
| 31. Can demonstrate tact, courtesy, and the ability to remain calm | 1 | 2 | 3 | 4 | 5 |
| 32. Can explain procedures clearly and effectively to a variety of persons | 1 | 2 | 3 | 4 | 5 |
| 33. Maintains correct and pleasant speech and voice habits | 1 | 2 | 3 | 4 | 5 |
| 34. Can properly address business envelopes | 1 | 2 | 3 | 4 | 5 |
| 35. Maintains a pleasing physical appearance while on the job | 1 | 2 | 3 | 4 | 5 |
| 36. Can complete typewritten tasks when: | | | | | |
| a. coping with the pressure of time | 1 | 2 | 3 | 4 | 5 |
| b. completing multiple tasks | 1 | 2 | 3 | 4 | 5 |
| c. working with many interruptions | 1 | 2 | 3 | 4 | 5 |
| 37. Has high statistical typing skill | 1 | 2 | 3 | 4 | 5 |
| 38. Can set up a variety of typewritten report formats | 1 | 2 | 3 | 4 | 5 |
| 39. Can accurately follow oral and written directions | 1 | 2 | 3 | 4 | 5 |
| 40. Demonstrates good spelling, grammar, and punctuation skills | 1 | 2 | 3 | 4 | 5 |
| 41. Can compose simple letters and reports, given an idea or facts for the content | 1 | 2 | 3 | 4 | 5 |
| 42. Can locate and copy information from a variety of forms and documents | 1 | 2 | 3 | 4 | 5 |
| 43. Can establish and maintain common filing systems including: | | | | | |
| a. alphabetic name files | 1 | 2 | 3 | 4 | 5 |
| b. numerical files | 1 | 2 | 3 | 4 | 5 |
| c. chronological files | 1 | 2 | 3 | 4 | 5 |
| d. color coding systems | 1 | 2 | 3 | 4 | 5 |
| 44. Demonstrates trustworthiness and loyalty to the company effort | 1 | 2 | 3 | 4 | 5 |
| 45. Can exercise initiative (self-starting) and can organize work for productive use of time available | 1 | 2 | 3 | 4 | 5 |

## STENOGRAPHIC AND SECRETARIAL OCCUPATIONS

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 46. Can apply company policies and procedures in decision-making process | 1 | 2 | 3 | 4 | 5 |
| 47. Can use basic bookkeeping skills | 1 | 2 | 3 | 4 | 5 |
| 48. Can make proper arrangements with co-worker when leaving desk for other duties | 1 | 2 | 3 | 4 | 5 |
| 49. Can schedule appointments and maintain a business calendar | 1 | 2 | 3 | 4 | 5 |
| 50. Can make routine decisions, interpretations, and judgments using manuals or written statements of policies and procedures | 1 | 2 | 3 | 4 | 5 |
| 51. Can exercise judgment in handling confidential material | 1 | 2 | 3 | 4 | 5 |
| 52. Can work without direct supervision | 1 | 2 | 3 | 4 | 5 |
| 53. Can accurately transcribe copy from dictation | 1 | 2 | 3 | 4 | 5 |
| 54. Can correctly and efficiently prepare letters of: | | | | | |
| a. acknowledgement | 1 | 2 | 3 | 4 | 5 |
| b. appointment | 1 | 2 | 3 | 4 | 5 |
| c. transmittals | 1 | 2 | 3 | 4 | 5 |
| d. follow-up | 1 | 2 | 3 | 4 | 5 |
| 55. Can efficiently process incoming telephone calls | 1 | 2 | 3 | 4 | 5 |
| 56. Can accurately type correspondence, memos, and other items from form or rough draft | 1 | 2 | 3 | 4 | 5 |
| 57. Can quickly and accurately process requests for records or files | 1 | 2 | 3 | 4 | 5 |
| 58. Can accurately update files from changes received | 1 | 2 | 3 | 4 | 5 |
| 59. Can perform those arithmetical operations associated with: | | | | | |
| a. recordkeeping | 1 | 2 | 3 | 4 | 5 |
| b. computing interest | 1 | 2 | 3 | 4 | 5 |
| c. computing discounts | 1 | 2 | 3 | 4 | 5 |
| 60. Can summarize financial statements | 1 | 2 | 3 | 4 | 5 |
| 61. Can apply basic statistics to business situations | 1 | 2 | 3 | 4 | 5 |
| 62. Can use reference books and directories effectively and correctly | 1 | 2 | 3 | 4 | 5 |
| 63. Understand the role of data processing in modern business operations | 1 | 2 | 3 | 4 | 5 |
| 64. Can demonstrate a knowledge of the principles of business law and the implications of governmental controls on business | 1 | 2 | 3 | 4 | 5 |
| 65. Understands the basic concepts of office administration: | | | | | |
| a. techniques of office management | 1 | 2 | 3 | 4 | 5 |
| b. control of clerical services | 1 | 2 | 3 | 4 | 5 |
| c. layout and work flow | 1 | 2 | 3 | 4 | 5 |
| 66. Can maintain the supplies inventory | 1 | 2 | 3 | 4 | 5 |

## STENOGRAPHIC AND SECRETARIAL OCCUPATIONS

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 67. Can set up and type multiple-column financial statements or reports . . . . . | 1 | 2 | 3 | 4 | 5 |
| 68. Can make all the arrangements for business conferences, including room reservations, travel arrangements, scheduling, banquet or luncheon facilities . . . . . | 1 | 2 | 3 | 4 | 5 |
| 69. Can analyze financial data . . . . . | 1 | 2 | 3 | 4 | 5 |

Please write below any other competencies (skills) which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. In the column at the right please indicate by number the competence level of each skill.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| | | | | |

Thank you for your assistance!

FILING, MACHINE AND GENERAL CLERICAL OCCUPATIONS

INSTRUCTIONS: For Completing Competency Selection Instrument

1. Remember the purpose:

   We are attempting to identify those industry skills (competencies) which will tend to reflect the greatest degree of competence (ability) in filing, machine and general clerical occupations.

   This competency list will be used to allow teachers to assess their ability in current industry skills.

2. Review the attached "Response Code Definitions" to be used in responding to each competency listed.

3. Rank all listed competencies using the above five point scale. Circle only one number for each competency. Choose that number which most nearly reflects your feelings about that competency.

4. We encourage you to alter the wording of competencies which are incorrectly stated or which could be stated more clearly. Please note such alterations directly above the competency or on the back of the page.

5. PLEASE NOTE - - - VERY IMPORTANT!

   You are very close to the industry which provides jobs for the filing, machine and general clerical occupations. Please help us by completing the last section of the instrument--which requests that you write in other competencies which we have missed! Please add any other competencies which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. Please consider those competencies that you most like to see in employees in this occupational area. Only with your help can we compile a complete listing of those "high ability" competencies.

6. Please be sure to place your name in the upper right-hand corner of the front page of the instrument.

Thank you for your valuable assistance!

RESPONSE CODE DEFINITIONS:

| Response Code | Definition |
|---|---|
| 1 | This skill reflects the highest level of competence in the occupational area. |
| 2 | This skill reflects an above average level of competence in the occupational area. |
| 3 | This skill reflects an average level of competence in the occupational area. |
| 4 | This skill reflects a low level of competence in the occupational area. |
| 5 | This skill does not reflect competence in the occupational area. (Column headed none). |

The underlined words in each definition are used to head the appropriate number column on the competency listing. Please circle that number most representative of your feelings about the competency. Circle only one number per competency.

Your Name _____

FILING, MACHINE AND GENERAL CLERICAL OCCUPATIONS
(14.0300)

Please CIRCLE only ONE response per line.

| | Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|---|
| 1. | Has the knowledge of filing systems and departmental functions | 1 | 2 | 3 | 4 | 5 |
| 2. | Can accurately scan and distinguish names, numbers, and colors for various filing procedures | 1 | 2 | 3 | 4 | 5 |
| 3. | Can maintain an established filing system | 1 | 2 | 3 | 4 | 5 |
| 4. | Has manual speed and dexterity for sorting, filing, and retreiving data | 1 | 2 | 3 | 4 | 5 |
| 5. | Can use coding systems or establish coding systems for filing systems | 1 | 2 | 3 | 4 | 5 |
| 6. | Can keep work organized while coping with interruptions | 1 | 2 | 3 | 4 | 5 |
| 7. | Has good alphabetizing skills | 1 | 2 | 3 | 4 | 5 |
| 8. | Can search for and locate filed materials | 1 | 2 | 3 | 4 | 5 |
| 9. | Can stamp, note, and fasten materials without mutilating | 1 | 2 | 3 | 4 | 5 |
| 10. | Can demonstrate effective communication skills--oral and written | 1 | 2 | 3 | 4 | 5 |
| 11. | Can properly index and code materials to be filed | 1 | 2 | 3 | 4 | 5 |
| 12. | Can make accurate notations of appointments | 1 | 2 | 3 | 4 | 5 |
| 13. | Can appropriately use various types of correcting devices--erasures, correcting tape, fluid, etc. | 1 | 2 | 3 | 4 | 5 |
| 14. | Can accurately prepare a report of petty cash transactions. | 1 | 2 | 3 | 4 | 5 |
| 15. | Can detect corrections and follow special instructions on work to be done | 1 | 2 | 3 | 4 | 5 |
| 16. | Can arrange names and addresses in correct order. | 1 | 2 | 3 | 4 | 5 |
| 17. | Can use the telephone effectively | 1 | 2 | 3 | 4 | 5 |
| 18. | Practices the principles of telephone courtesy | 1 | 2 | 3 | 4 | 5 |
| 19. | Has a knowledge of the material filed | 1 | 2 | 3 | 4 | 5 |
| 20. | Can spot pertinent information within reports, forms, and files | 1 | 2 | 3 | 4 | 5 |
| 21. | Can compile simple telephone lists. | 1 | 2 | 3 | 4 | 5 |
| 22. | Can compose routine letters | 1 | 2 | 3 | 4 | 5 |
| 23. | Can schedule appointments | 1 | 2 | 3 | 4 | 5 |
| 24. | Can accurately produce typewritten copy | 1 | 2 | 3 | 4 | 5 |
| 25. | Has good proofreading skills | 1 | 2 | 3 | 4 | 5 |

## FILING, MACHINE AND GENERAL CLERICAL OCCUPATIONS

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 26. Can complete typewritten tasks when: | | | | | |
| a. coping with the pressure of time. | 1 | 2 | 3 | 4 | 5 |
| b. completing multiple tasks | 1 | 2 | 3 | 4 | 5 |
| c. working with many interruptions | 1 | 2 | 3 | 4 | 5 |
| 27. Demonstrates good spelling, grammar and punctuation skills. | 1 | 2 | 3 | 4 | 5 |
| 28. Can divide words properly in typed copy | 1 | 2 | 3 | 4 | 5 |
| 29. Can write checks accurately | 1 | 2 | 3 | 4 | 5 |
| 30. Can sort and distribute mail quickly and accurately | 1 | 2 | 3 | 4 | 5 |
| 31. Can transfer filed materials properly and at the appropriate time | 1 | 2 | 3 | 4 | 5 |
| 32. Can record accurate notes of telephone messages | 1 | 2 | 3 | 4 | 5 |
| 33. Can route interoffice messages. | 1 | 2 | 3 | 4 | 5 |
| 34. Can efficiently process incoming mail | 1 | 2 | 3 | 4 | 5 |
| 35. Can quickly and accurately process requests for records or files. | 1 | 2 | 3 | 4 | 5 |
| 36. Can type invoices from such documents as sales tickets, contracts, and receiving reports | 1 | 2 | 3 | 4 | 5 |
| 37. Can type mailable reports from rough draft. | 1 | 2 | 3 | 4 | 5 |
| 38. Can update the files. | 1 | 2 | 3 | 4 | 5 |
| 39. Can prepare petty cash vouchers | 1 | 2 | 3 | 4 | 5 |
| 40. Can keep an accurate record of checks written | 1 | 2 | 3 | 4 | 5 |
| 41. Can accurately sort and classify materials to be filed. | 1 | 2 | 3 | 4 | 5 |
| 42. Can transcribe mailable letters and communication from machine dictated materials. | 1 | 2 | 3 | 4 | 5 |
| 43. Can efficiently and accurately address business envelopes | 1 | 2 | 3 | 4 | 5 |
| 44. Can efficiently and accurately calculate arithmetical problems of: | | | | | |
| a. computing percentages | 1 | 2 | 3 | 4 | 5 |
| b. computing discounts | 1 | 2 | 3 | 4 | 5 |
| 45. Can type mailable business letters in various acceptable styles | 1 | 2 | 3 | 4 | 5 |
| 46. Can make accurate follow-up arrangements for return calls | 1 | 2 | 3 | 4 | 5 |
| 47. Can prepare bank deposit slips from cash receipts | 1 | 2 | 3 | 4 | 5 |
| 48. Demonstrates a tolerance for routine work | 1 | 2 | 3 | 4 | 5 |
| 49. Can compile data for reports. | 1 | 2 | 3 | 4 | 5 |
| 50. Can record data on forms quickly and accurately | 1 | 2 | 3 | 4 | 5 |
| 51. Can work under pressure of time in meeting deadlines. | 1 | 2 | 3 | 4 | 5 |
| 52. Can apply basic mathematics as required by the job situation. | 1 | 2 | 3 | 4 | 5 |
| 53. Can work without direct supervision | 1 | 2 | 3 | 4 | 5 |
| 54. Can make work-priority decisions. | 1 | 2 | 3 | 4 | 5 |

FILING, MACHINE AND GENERAL CLERICAL OCCUPATIONS

Competence Level

ase CIRCLE only ONE response per line.

| Skills or Competencies | Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| Can operate accurately manual and electronic calculators. | 1 | 2 | 3 | 4 | 5 |
| 5. Can set up and type tables and letters from unarranged (rough draft) copy | 1 | 2 | 3 | 4 | 5 |
| . Can use good diction. | 1 | 2 | 3 | 4 | 5 |
| 8. Has legible handwriting | 1 | 2 | 3 | 4 | 5 |
| . Can use long-distance lines and special telephone hookups | 1 | 2 | 3 | 4 | 5 |
| 0. Demonstrates good grooming practice throughout the year with little or no coaching | 1 | 2 | 3 | 4 | 5 |
| . Can effectively use dictating-transcribing equipment. | 1 | 2 | 3 | 4 | 5 |
| . Can count cash accurately and efficiently | 1 | 2 | 3 | 4 | 5 |
| . Can insert words or numbers on various business forms accurately. | 1 | 2 | 3 | 4 | 5 |
| . Can correct errors neatly on all forms and multiple copies. | 1 | 2 | 3 | 4 | 5 |
| . Can accurately type correspondence, memos, and other items from form and rough draft. | 1 | 2 | 3 | 4 | 5 |
| . Can accurately cross-reference file materials | 1 | 2 | 3 | 4 | 5 |
| . Can accurately follow oral and written directions | 1 | 2 | 3 | 4 | 5 |
| . Can type consistently at 60 net words a minute from straight copy | 1 | 2 | 3 | 4 | 5 |
| . Can use dictionaries, directories, and reference materials quickly and efficiently | 1 | 2 | 3 | 4 | 5 |
| . Can make screening decisions--in person or by telephone | 1 | 2 | 3 | 4 | 5 |
| 1. Can properly sort and post outgoing mail according to appropriate classifications | 1 | 2 | 3 | 4 | 5 |
| . Can compute deductions from gross earnings such as: | | | | | |
| a. federal and state income withholding tax. | 1 | 2 | 3 | 4 | 5 |
| b. F.I.C.A. | 1 | 2 | 3 | 4 | 5 |
| c. garnishments. | 1 | 2 | 3 | 4 | 5 |
| d. voluntary deductions. | 1 | 2 | 3 | 4 | 5 |
| . Can compute gross earnings by such payroll plans as: | | | | | |
| a. hourly rate plan. | 1 | 2 | 3 | 4 | 5 |
| b. piece-rate plan | 1 | 2 | 3 | 4 | 5 |

FILING, MACHINE AND GENERAL CLERICAL OCCUPATIONS

Please write below any other competencies (skills) which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. In the column at the right please indicate by number the competence level of each skill.

| Competence Level | | | | |
|---|---|---|---|---|
| Highest | Above Avg. | Average | Low | Non |
| 1 | 2 | 3 | 4 | 5 |

Thank you for your assistance!

ACCOUNTING AND COMPUTING OCCUPATIONS

INSTRUCTIONS: For Completing Competency Selection Instrument

1. Remember the purpose:

   We are attempting to identify those industry skills (competencies) which will tend to reflect the greatest degree of competence (ability) in accounting and computing occupations.

   This competency list will be used to allow teachers to assess their ability in current industry skills.

2. Review the attached "Response Code Definitions" to be used in responding to each competency listed.

3. Rank all listed competencies using the above five point scale. Circle only one number for each competency. Choose that number which most nearly reflects your feelings about that competency.

4. We encourage you to alter the wording of competencies which are incorrectly stated or which could be stated more clearly. Please note such alterations directly above the competency or on the back of the page.

5. PLEASE NOTE - - - VERY IMPORTANT!

   You are very close to the industry which provides jobs for the accounting and computing occupations. Please help us by completing the last section of the instrument--which requests that you write in other competencies which we have missed! Please add any other competencies which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. Please consider those competencies that you most like to see in employees in this occupational area. Only with your help can we compile a complete listing of those "high ability" competencies.

6. Please be sure to place your name in the upper right-hand corner of the front page of the instrument.

Thank you for your valuable assistance!

RESPONSE CODE DEFINITIONS:

| Response Code | Definition |
|---|---|
| 1 | This skill reflects the highest level of competence in the occupational area. |
| 2 | This skill reflects an above average level of competence in the occupational area. |
| 3 | This skill reflects an average level of competence in the occupational area. |
| 4 | This skill reflects a low level of competence in the occupational area. |
| 5 | This skill does not reflect competence in the occupational area. (Column headed none). |

The underlined words in each definition are used to head the appropriate number column on the competency listing. Please circle that number most representative of your feelings about the competency. Circle only one number per competency.

Your Name _____

ACCOUNTING AND COMPUTING OCCUPATIONS
(14.0100)

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 1. Can reconcile the bank statement with the checkbook and ledger | 1 | 2 | 3 | 4 | 5 |
| 2. Can establish and properly maintain a petty cash fund | 1 | 2 | 3 | 4 | 5 |
| 3. Can accurately analyze depreciation, amortization, and depletion schedules | 1 | 2 | 3 | 4 | 5 |
| 4. Can calculate and interpret merchandise inventory turnover | 1 | 2 | 3 | 4 | 5 |
| 5. Can calculate and interpret the acid-test ratio | 1 | 2 | 3 | 4 | 5 |
| 6. Can calculate and interpret the current ratio | 1 | 2 | 3 | 4 | 5 |
| 7. Can calculate and interpret accounts receivable turnover | 1 | 2 | 3 | 4 | 5 |
| 8. Understand and can describe the concept of working capital | 1 | 2 | 3 | 4 | 5 |
| 9. Given fixed and variable costs, can calculate break-even point | 1 | 2 | 3 | 4 | 5 |
| 10. Can accurately compute trade discounts | 1 | 2 | 3 | 4 | 5 |
| 11. Can properly establish and maintain payroll records | 1 | 2 | 3 | 4 | 5 |
| 12. Can record employers payroll tax liabilities | 1 | 2 | 3 | 4 | 5 |
| 13. Can prepare and submit payroll tax remittance forms to both the state and federal government | 1 | 2 | 3 | 4 | 5 |
| 14. Can properly prepare a schedule of accounts receivable | 1 | 2 | 3 | 4 | 5 |
| 15. Can reconcile accounts to allow for uncollectible debts by: | | | | | |
| a. direct write off method | 1 | 2 | 3 | 4 | 5 |
| b. the allowance method | 1 | 2 | 3 | 4 | 5 |
| 16. Can properly age accounts receivable to determine overdue accounts | 1 | 2 | 3 | 4 | 5 |
| 17. Can establish and maintain subsidiary ledgers for accounts receivable and accounts payable | 1 | 2 | 3 | 4 | 5 |
| 18. Can reconcile records for the collection of debts previously written off | 1 | 2 | 3 | 4 | 5 |
| 19. Can accurately prepare basic financial statements such as income statements and balance sheets for a merchandising or service business | 1 | 2 | 3 | 4 | 5 |
| 20. Can prepare basic income statements and balance sheets for manufacturing firms | 1 | 2 | 3 | 4 | 5 |
| 21. Can prepare a basic statement of cost of goods manufactured | 1 | 2 | 3 | 4 | 5 |
| 22. Can prepare a basic comparative income statement and balance sheet for a departmental or branch business operation | 1 | 2 | 3 | 4 | 5 |
| 23. Can accurately determine net sales | 1 | 2 | 3 | 4 | 5 |

ACCOUNTING AND COMPUTING OCCUPATIONS

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 24. Can describe the purpose of financial statements such as income statements and balance sheet | 1 | 2 | 3 | 4 | 5 |
| 25. Can prepare and explain a flow chart illustrating the steps in an accounting cycle for a given business | 1 | 2 | 3 | 4 | 5 |
| 26. Can properly classify accounts into assets, liabilities, and owners equity | 1 | 2 | 3 | 4 | 5 |
| 27. Can explain the effect of various transactions on the accounting equation | 1 | 2 | 3 | 4 | 5 |
| 28. Can identify the advantages and disadvantages of the accrual basis of accounting | 1 | 2 | 3 | 4 | 5 |
| 29. Can record transactions which involve the sale of fixed assets including loss or gain on the sale and accumulated depreciation | 1 | 2 | 3 | 4 | 5 |
| 30. Can identify the advantages and disadvantages of the various forms of business ownership such as single proprietorship, partnership, corporation, cooperative | 1 | 2 | 3 | 4 | 5 |
| 31. Understands and can explain the rules of debiting and crediting | 1 | 2 | 3 | 4 | 5 |
| 32. Understand and can describe the basic principle of separation of duties within the accounting department | 1 | 2 | 3 | 4 | 5 |
| 33. Understands and can apply the "Accounting Equation" (Assets= Liabilities + Owner's Equity) | 1 | 2 | 3 | 4 | 5 |
| 34. Understands and can describe the purpose of accounts | 1 | 2 | 3 | 4 | 5 |
| 35. Understands and can describe the purpose of the ledger | 1 | 2 | 3 | 4 | 5 |
| 36. Understands the accounting principle stating that there must be a proper cut off date for the recording of revenues, costs, and expenses in the accounting period | 1 | 2 | 3 | 4 | 5 |
| 37. Can accurately record changes in owner's equity accounts including capital accounts, revenue accounts, and expense accounts | 1 | 2 | 3 | 4 | 5 |
| 38. Understand and can explain the accounting principle that prepaid expenses should be charged as expenses to future periods in which they are used | 1 | 2 | 3 | 4 | 5 |
| 39. Can establish and close an expense and revenue or profit and loss summary account | 1 | 2 | 3 | 4 | 5 |
| 40. Can accurately locate trial balance errors | 1 | 2 | 3 | 4 | 5 |
| 41. Can accurately complete a post closing trial balance | 1 | 2 | 3 | 4 | 5 |
| 42. Can locate accounting errors which are not revealed by trial balance | 1 | 2 | 3 | 4 | 5 |
| 43. Can prepare a standard work sheet | 1 | 2 | 3 | 4 | 5 |
| 44. Can set up and maintain a journal-less accounting system | 1 | 2 | 3 | 4 | 5 |

## ACCOUNTING AND COMPUTING OCCUPATIONS

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 45. Can establish and maintain a voucher system: | | | | | |
| a. to verify and record liabilities | 1 | 2 | 3 | 4 | 5 |
| b. to pay and record cash payments | 1 | 2 | 3 | 4 | 5 |
| 46. Can design and properly use a combination journal | 1 | 2 | 3 | 4 | 5 |
| 47. Can establish and maintain special journals such as the sales, purchases, cash receipts and cash disbursements journals | 1 | 2 | 3 | 4 | 5 |
| 48. Understand and can describe the theory of absorption costing in relationship to a manufacturing firm | 1 | 2 | 3 | 4 | 5 |
| 49. Understand and can describe the theory of variable costing or direct costing in relationship to a manufacturing firm | 1 | 2 | 3 | 4 | 5 |
| 50. Can maintain job order cost or process cost accounting systems | 1 | 2 | 3 | 4 | 5 |
| 51. Can apply the concept of income averaging to the calculation of income tax | 1 | 2 | 3 | 4 | 5 |
| 52. Can prepare a tax return with itemized deductions for a salaried individual with no business income | 1 | 2 | 3 | 4 | 5 |
| 53. Can prepare a tax return, including the common schedules, for a person whose primary income is derived from business operations | 1 | 2 | 3 | 4 | 5 |
| 54. Can establish and maintain accounts to record the purchase and sale of bonds, including the calculation of premiums and discounts | 1 | 2 | 3 | 4 | 5 |
| 55. Can establish and maintain accounts to record shareholder transactions for a corporation | 1 | 2 | 3 | 4 | 5 |
| 56. Understand and can describe the basic rights that accompany both common and preferred stock | 1 | 2 | 3 | 4 | 5 |
| 57. Can calculate equity per share of common and preferred stock | 1 | 2 | 3 | 4 | 5 |
| 58. Can maintain equity accounts for a partnership business | 1 | 2 | 3 | 4 | 5 |
| 59. Can properly account for notes receivable and payable including issuance and payment of both | 1 | 2 | 3 | 4 | 5 |
| 60. Can calculate and account for interest receivable from installment sales or accounts receivable | 1 | 2 | 3 | 4 | 5 |
| 61. Can establish and maintain a depreciation schedule for all depreciable assets | 1 | 2 | 3 | 4 | 5 |
| 62. Can open accounts such as asset accounts, liability accounts, owner's equity accounts | 1 | 2 | 3 | 4 | 5 |
| 63. Can calculate depreciation by the: | | | | | |
| a. straight line method | 1 | 2 | 3 | 4 | 5 |
| b. declining balance method | 1 | 2 | 3 | 4 | 5 |
| c. sum-of-the-years digits method | 1 | 2 | 3 | 4 | 5 |
| d. units of depreciation method | 1 | 2 | 3 | 4 | 5 |
| 64. Can calculate and record deferred or accrued income and expenses | 1 | 2 | 3 | 4 | 5 |

## ACCOUNTING AND COMPUTING OCCUPATIONS

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 65. Can properly close revenue and expense accounts | 1 | 2 | 3 | 4 | 5 |
| 66. Can maintain the proper records for a perpetual inventory system | 1 | 2 | 3 | 4 | 5 |
| 67. Can calculate the value of inventory on the basis of the: | | | | | |
| a. L.I.F.O. method | 1 | 2 | 3 | 4 | 5 |
| b. F.I.F.O. method | 1 | 2 | 3 | 4 | 5 |
| c. retail method | 1 | 2 | 3 | 4 | 5 |
| 68. Understand and can describe the effect various inventory pricing systems will have on cost-of goods sold | 1 | 2 | 3 | 4 | 5 |

Please write below any other competencies (skills) which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. In the column at the right please indicate by number the competence level of each skill.

| | | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |

Thank you for your assistance!

Your Name _____

BUSINESS DATA PROCESSING OCCUPATIONS
(14.0200)

Please CIRCLE only ONE response per line.

| Skills or Competencies | Competence Level: Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|
| 1. Can interpret the coding systems used for punched card, paper tape, and magnetic tape. | 1 | 2 | 3 | 4 | 5 |
| 2. Understand the proper use of octal and hexadecimal number coding systems. | 1 | 2 | 3 | 4 | 5 |
| 3. Understand and can apply the proper use of binary number coding systems. | 1 | 2 | 3 | 4 | 5 |
| 4. Can identify the uses of auxiliary and external storage units of a computer. | 1 | 2 | 3 | 4 | 5 |
| 5. Understand and can properly use disc and magnetic tape storage. | 1 | 2 | 3 | 4 | 5 |
| 6. Can describe the use of (MICR) Magnetic Ink Character Recognition concept. | 1 | 2 | 3 | 4 | 5 |
| 7. Can use octal and hexadecimal systems in debugging. | 1 | 2 | 3 | 4 | 5 |
| 8. Can identify and describe the purpose and proper usage of input devices, central processors, and output devices in electronic data processing. | 1 | 2 | 3 | 4 | 5 |
| 9. Understands the GIGO Principle (Garbage-In, Garbage-Out). | 1 | 2 | 3 | 4 | 5 |
| 10. Can identify and describe the purpose and advantages of (IDP) integrated data processing. | 1 | 2 | 3 | 4 | 5 |
| 11. Can identify and describe the functions of the console and console inquiry system. | 1 | 2 | 3 | 4 | 5 |
| 12. Can define and properly use common computer related terms. | 1 | 2 | 3 | 4 | 5 |
| 13. Can identify the advantages of electronic computer processing. | 1 | 2 | 3 | 4 | 5 |
| 14. Understands and can apply the three primary steps in the data processing cycle: Input, process, and output. | 1 | 2 | 3 | 4 | 5 |
| 15. Can identify and describe the function of the internal storage, the arithmetic logic, and the control components of the central processing unit of a computer. | 1 | 2 | 3 | 4 | 5 |
| 16. Can write COBOL programs for data processing problems at the following levels: | | | | | |
| a. simple accounting problem; such as, three level total. | 1 | 2 | 3 | 4 | 5 |
| b. payroll system | 1 | 2 | 3 | 4 | 5 |
| c. index sequential files | 1 | 2 | 3 | 4 | 5 |
| d. data base management | 1 | 2 | 3 | 4 | 5 |
| 17. Can explain the difference between fixed word length and variable word length computers. | 1 | 2 | 3 | 4 | 5 |

| | | Competence Level | | | | |
|---|---|---|---|---|---|---|
| | | Highest | Above Avg. | Average | Low | None |
| 18. | Can properly code and maintain computer programs for such functions as: | | | | | |
| | a. printing of journals | 1 | 2 | 3 | 4 | 5 |
| | b. updating accounts receivable | 1 | 2 | 3 | 4 | 5 |
| | c. preparing statements of accounts | 1 | 2 | 3 | 4 | 5 |
| | d. maintain constant inventory records | 1 | 2 | 3 | 4 | 5 |
| 19. | Can identify characteristics of a machine language instruction for a computer | 1 | 2 | 3 | 4 | 5 |
| 20. | Can explain and properly apply procedures for checking accuracy of recorded data | 1 | 2 | 3 | 4 | 5 |
| 21. | Understands and can describe the proper use of electronic data processing service centers | 1 | 2 | 3 | 4 | 5 |
| 22. | Understands use of and can prepare a flow chart showing steps for solving a problem on a computer | 1 | 2 | 3 | 4 | 5 |
| 23. | Can identify and apply the 7 basic data processing operations: recording, classifying, sorting, computing, summarizing, communicating, and storing | 1 | 2 | 3 | 4 | 5 |
| 24. | Can properly apply electronic data processing techniques and equipment to such applications as preparing payroll, updating accounts receivable, and maintaining inventory | 1 | 2 | 3 | 4 | 5 |
| 25. | Can name and describe the functions of the divisions of a COBOL program | 1 | 2 | 3 | 4 | 5 |
| 26. | Can properly design card layout using card fields | 1 | 2 | 3 | 4 | 5 |
| 27. | Understands and can accurately complete activities to program the computer including: | | | | | |
| | a. analyzing the problem | 1 | 2 | 3 | 4 | 5 |
| | b. planning the program | 1 | 2 | 3 | 4 | 5 |
| | c. coding the instructions | 1 | 2 | 3 | 4 | 5 |
| | d. debugging the program | 1 | 2 | 3 | 4 | 5 |
| | e. documenting the program | 1 | 2 | 3 | 4 | 5 |
| 28. | Can identify and describe the basic methods of processing data: manual, mechanical, punched-card, and electronic | 1 | 2 | 3 | 4 | 5 |
| 29. | Can flow chart the 3-level total problem while updating a disc file | 1 | 2 | 3 | 4 | 5 |
| 30. | Understands the function of and can use job control instructions for a computer | 1 | 2 | 3 | 4 | 5 |
| 31. | Can use standard utility programs | 1 | 2 | 3 | 4 | 5 |
| 32. | Can use debugging tools; such as dumps to correct errors in the program | 1 | 2 | 3 | 4 | 5 |
| 33. | Understand the concept and can describe the function of virtual storage | 1 | 2 | 3 | 4 | 5 |
| 34. | Understand and can apply the concepts of multi-programming | 1 | 2 | 3 | 4 | 5 |
| 35. | Can identify and describe the function of file processing techniques; such as, sequential, index sequential, and random access files | 1 | 2 | 3 | 4 | 5 |

BUSINESS DATA PROCESSING

Competence Level

| | | Highest | Above Avg. | Average | Low | None |
|---|---|---|---|---|---|---|
| 36. | Understands and can apply the basic concepts of operating systems and their use and function. | 1 | 2 | 3 | 4 | 5 |
| 37. | Can describe the difference between real time and batch processing operations. | 1 | 2 | 3 | 4 | 5 |
| 38. | Can write programs to create an up-date sequential, indexed sequential, and random files. | 1 | 2 | 3 | 4 | 5 |
| 39. | Can properly operate key punch (data entry) machines. | 1 | 2 | 3 | 4 | 5 |
| 40. | Can properly operate MICR equipment. | 1 | 2 | 3 | 4 | 5 |
| 41. | Can properly operate optical scanning equipment. | 1 | 2 | 3 | 4 | 5 |
| 42. | Can accurately operate commonly used input equipment, control processing equipment, and output equipment for electronic data processing. | 1 | 2 | 3 | 4 | 5 |
| 43. | Can properly operate punch tape producing and tape driven machines. | 1 | 2 | 3 | 4 | 5 |
| 44. | Can operate a computer console. | 1 | 2 | 3 | 4 | 5 |
| 45. | Can communicate with the operating system through operator commands. | 1 | 2 | 3 | 4 | 5 |
| 46. | Can maintain a run log. | 1 | 2 | 3 | 4 | 5 |
| 47. | Can properly use and store data processing software; such as, magnetic disc packs and magnetic tape reels. | 1 | 2 | 3 | 4 | 5 |
| 48. | Can interpret and explain a program card used for a specific problem. | 1 | 2 | 3 | 4 | 5 |

## BUSINESS DATA PROCESSING

Please write below any other competencies (skills) which you feel would fall in the "Highest (1)" or "Above Average (2)" competence levels for this occupational area. In the column at the right please indicate by number the competence level of each skill.

| Competence Level | | | | |
|---|---|---|---|---|
| Highest | Above Avg. | Average | Low | None |

Thank you for your assistance!

APPENDIX D

Respondents' Comments

AGRICULTURAL PRODUCTION

Comments Concerning Occupational Experience

06--The occupational experience that an instructor receives every five years should be three months. This would let the instructor keep his present job and also receive the needed training.

02--I was raised on a farm and have gained a great deal of experience from my home life.

12--On item 16. The instructor should be involved in updating workshops, using resource personnel and supervision of experience programs. If involved in these areas he should not need to return to industry for updating experience.

16--Occupational experience is important but it is not feasible for a Vo-Ag teacher since I work on a 12 month contract. A Vo-Ag teacher who is doing his job is on ranches gaining new information all of the time.

18--I feel the experience should be post-secondary (received after a person graduates from high school).
I own a small farm; thatswhy my answers may sound strange.

19--I feel that summers should be spent in industry, not cleaning out ones office. Production Ag is no longer No. 1, few too many teachers know about agri-business or agri-industry.

23--I have owned and operated my own farms since 1963. I believe Ag teachers should be closely involved with current Ag practices but they don't need to go back to farming. I don't feel qualified to speak for other areas.

24--Should vary from program to program. Shouldn't require full-time experience of a new teacher--when has he been able to be employed full-time? Many inequities in present system, also in so called "full-time" and "part-time".

25--With extended contracts, it is very difficult for some Ag Instructors to gain occupational experience. I see as the only possible alternative--short leaves of absence in order for occupational experience to be obtained.

26--My occupational experience involves being raised on an irrigated farm in S.W. Colorado. None of your items in this section are very applicable to Vocational Agriculture. The experience counts on a production farm after the age of fourteen.

27--An instructor should strive to obtain as much actual experience as possible in his/her area of occupational training. In some cases this is difficult since many instructors are employed for an 11 month period. However, this time allows the instructor to obtain experience in the field that is being taught. In my instance, I utilize part of my vacation to gain experience and also hold down a part-time job during the school year. Experience gained in both on-farm and agri-related areas are of importance in increasing an instructor's skills.

AGRICULTURAL PRODUCTION, Continued

Comments on Occupational Experience

33--Teaching is being involved--You have got to stay up on new things--I don't believe that just "workshops" do this.

37--Occupational experience is very important. Every vocational teacher must have actual experience in their teaching field. NEVER DROP THIS STANDARD. Each teacher can up-date their experience by attending workshops which are related to their teaching.

40--I, myself, was raised on a farm and cannot determine part-time and full-time experience run together. Occupational experience is an important tool if used right. It takes a tremendous amount of cooperation between student/ teacher/parent/ and counselor/principal. I have found that if any of the above come to regard a vocational class as just another class--without need of an occupational experience program--it makes it extremely difficult to meet the goals that should be met.

I might suggest that all vocational teachers have courses in counseling and salesmanship.

All vocational teachers should have past and frequent occupational experiences, but I am not in favor of making this mandatory.

I might add that one of the biggest drawbacks to running adequate occupational experiences--behind selling the program, of course--is pay. Vocational Agriculture teachers are not paid in proportion with other teachers for the amount of work done. Instructors should receive pay for occupational experience programs.

43--Occupational experience is very essential to the success of a program, however, I think in the teaching profession an individual must strive to keep up-to-date daily with new ideas and technology, rather than standing still for 5, 7, or 10 years and then be introduced to the industry once again.

44--We need more of it--only way to keep current in changes and new information.

46--Ag men cannot get away from summer work for full-time occupational experience.

52--I don't feel that returning to the industry is as important or would be much more beneficial as would keeping current with subject matter in the industry through workshops as well as other educational means.

65--Two to four weeks should be spent each year in the industry to help keep up with new ideas.

74--A Voc-Ag teacher is around it with his supervised program.

75--Occupational experience can be gained while teaching by being observant on S.O.E.P. visits, asking questions, and from industry people brought into the classroom, but you must have some background to profit from this.

AGRICULTURAL PRODUCTION

Comments on Occupational Experience

76--Without some occupational experience prior to entering the teaching field, I don't feel that a teacher is prepared to do his best.

69--I don't believe I'm concerned with the number of years as I am with the number of different types of occupational experience. I believe we should have to work with these different areas as part of college credits. Even 1-2 months would help!

73--I feel that in Vocational Agriculture that an instructor keeps up his occupational experience with on-the-farm visitations to secondary students and young farmers.

77--In production ag a variety of non-ag experiences can be helpful.

78--I think occupational experience is very beneficial--it is much better than the theory you receive in a college or university. There is one problem I believe! It is pretty tough sometimes to gain occupational experience especially in ones locale, also its tough on the pocketbook to leave ones professional job to get occupational experience. This I believe is where state governments may help, by giving individuals an opportunity to gain occupational experience in some facet of their vast industrys. For example, an Agricultural educator could be put to work on state owned lands!

79--One month of occupational experience is equal to about one year of further schooling.

85--I feel that hours may be more important. The more experiences you gain whether part-time or full-time is of great value. Vocational teachers need to be jack of all trades and master of some.

86--I have my own operations in Production Ag

89--Workshops in vocational education are very important. If you are contemplating requiring a teacher to work so many hours in his field as well as having the college credits to renew his certificate, you are overdoing it. Industry should go to the instructor not visa versa. Vocational education may not have the money to stay abreast of industry anyway.

91--I know it would cut down on the number of teacher trainees, but I feel that some time in each area would be of some help to a vocational teacher Example: Ag Instructor--Dairy, Feedlot, Mechanics, Sales--Cooperative, Farm--Dryland and Irrigation.

92--The more work experience the better. I would like to receive some credit for work experience in place of college credit for re-certification.

93--In the field of Vo-Ag part-time occupational experience is more than adequate--Work with adults and young farmers keeps ag teachers well informed of the agricultural changes.

AGRICULTURAL PRODUCTION

Comments on Occupational Experience

95--I've been employed with farming all my life and feel that I've needed all the experiences that I've gained throughout the years to be successful in my vocational field.

As fast as new tech. is being introduced in the ag industry, I'm not sure that returning to industry every two years is sufficient for updating.

97--Agriculture teachers should keep current but it is not necessary to be employed or to farm or ranch in order to keep current. Experience is a good teacher but not the only teacher. It would not be possible to gain all the experiences from any job, farm, or other employment.

01--We are required by the State of Colorado to renew our certificate with nine credit hours every five years and no credit is ever given for work experience so all these hours are extra or over and above those and we usually work 11 months of the year so time is limited for work experience. The fact that ag teachers make farm visits allows us to keep abreast of most of the developments in production ag.

07--Occupational (practical) experience is that which a vocational instructor is faced with every class day, on weekends, during summer. For this reason there is no logical basis for suggesting that vocational people should be forced to spend time in outside occupational experience. They stay current with upcoming trends simply because of the nature of their work. Imposing this requirement (outside experience) is some more bureaucratic foolishness. Those who sit in places of authority and think up these ridiculous schemes should be permitted to leave this phase of education.

08--Occupational experience is the key to successful teaching. Most of the experiences I've gained were outside of the college experiences. However, college classes gave me technical knowledge which I can apply to my students' programs.

13--If an ag teacher is continually observing agriculture and keeping up with new methods and products by reading the various agricultural magazines and other available materials he should not necessarily have to return to industry for updating.

64--Agriculture has changed so vastly that if it were not for my activity in part-time farming I might just as well have packed my bags five to ten years ago. I really realized this when I started farming our land lab at our school.

03--More course and area covered by teacher, then the more confident and benefit to teaching you become.

49--An instructor needs some way of updating his experience and course of study but this can be done in several ways. By reading current magazines or bulletins an instructor can update himself faster and in a broader area than by just working.

AGRICULTURAL PRODUCTION

Comments on Occupational Experience

60--In Vocational Agriculture we are in the field on enterprise visits. I feel this helps keep us updated. I don't feel we need release time.

64--I really never realized how out dated I had become until our school purchased land for a school farm laboratory.

72--Itwould be determined by what area you are involved in and what contact you have with that area during the school year.

## ORNAMENTAL HORTICULTURE

### Comments Concerning Occupational Experience

08--Along with the on-the-job experience an instructor must have a way, means, and knowledge to present material to a class or all his experience is useless.

00--A teacher in our field who maintains contact with the field of horticulture, reads current literature and attends workshops, etc., shouldn't need to return to "industry" to update his skills.

05--Relevant occupational experience can be obtained in several ways in addition to actually working for someone else. The school greenhouse and nursery provide a training station for the instructor! Contact with businessmen on a regular basis also can give a lot of insight to the instructor. Also, attending trade meetings, short courses, and conventions gives a lot of information that is relevant to the instructor. Also reading trade related literature is important. If we spent a summer every few years working in a business we certainly would be reminded and informed of the skills employees need. We would also become more competent in those skills ourselves.

04--There are two major areas of training--greenhouse and floral work, and nursery, landscaping, maintenance work. It would be good to have some work experience in the two major areas working with students along the front range.

01--A good vocational teacher will never be completely out of contact with his vocational service area. With almost daily contact with people in his field exchanging ideas, asking advice (both ways) there is no need to actually be employed by that industry.

03--Occupational experience is a continuing process, as much or more working knowledge is gained while teaching the subject as is realized "on the job".

STENOGRAPHIC AND SECRETARIAL

Comments on Occupational Experience

12--I worked as an office manager/accountant for almost 3 years (after graduation but prior to teaching). This experience was extremely valuable. I feel, though, that I take it upon myself to keep abreast of recent developments in my field and do not need to be forced, by state law, into taking more hours of work experience. Employers are reluctant to hire teachers for summer position work. (In my area of the state) They would rather hire a high school graduate and train them for a full time position.

16--In my opinion I think if it's important for a vocational teacher to return to industry then the teacher should be paid their salary and released during the school year (1 semester) to work in industry. I think it is wrong to expect a teacher to find a summer related job and work all summer--pay transportation and babysitter expenses out of their own pocket. Vocational teachers are not paid any more than other teachers. Why expect more for no compensation?

17--My comments relate to total State
1) Desirable employment is limited (for educational purposes).
2) Can obtain broader concepts by viewing and coming in contact with as many industries as possible, rather than limiting experience with one (surveys, visitations, community activities, campus work, etc.).

19--1) Teachers returning to "industry" must have teaching jobs guaranteed.
2) Salary in "industry" must be equal to teaching salary.
3) Teacher should not deprive others of needed occupations.

27--Also, all those involved in the training institutions should be put back in the classroom--in high school--if they are training high school teachers--once every 5 years to find out what it's really like.

29--In our school district we have a Career Development Center and our school is one of four feeder schools. I do not feel it is necessary for me to have current related occupational experience in teaching beginning courses in office occupations.

52--Since very few school districts pay vocational teachers extra for their time/effort to be vocationally certified, it puts a strain on a teacher to renew vocationally through courses/occupational experience!

57--I found it difficult to answer the last 2 questions because of varied teacher situations. I am a COE coordinator and keep current on office procedures as a result of coordinating duties. Also our advisory committee keeps the department posted on current trends.

59--Last summer at CSU we discussed this issue for hours. Our base pay in our school 5/76 is $7,700, how can I afford to go back in industry?

The mistake made in this type of thinking is that we need to work months on the same job. All we need to do is visit industry and look at their latest methods. Personally, several days visiting the offices will do more good than one month at a minor job. You can't ask industry to put us in a management job at top pay.

My advisory board does a great job on updating my material.

STENOGRAPHIC AND SECRETARIAL

Comments on Occupational Experience

61--Occupational experience is an absolute necessity. It should be for at least one full year (12 consecutive months) and it would be desirable for the person to have experience in more than one industry due to variations in procedures and the great variety of fields available. Furthermore, this gives experience with more occupational groups, with adaptability to changes, and with the rapid growth of industry itself.

69--I feel that if a career development center is near your area, the equipment is much more advanced than any office in the area. Therefore, training in the local office would not be as practical as teaching at a vocational center. Also, I am always having people come to my classes from businesses so I feel that the students are being kept up on the new changes. I don't think I ever use my experience from my work as a reference. Possibly if we received release time for working and got the same pay extra hours would be worth--or the vocational state office paid us for this. Right now we get no benefits at all.

70--I feel it is important to be able to relate actual "on the job" experiences a teacher has personally had. Also, if the students know you have had some work experience, I believe they have more confidence in what you are trying to relate to them in your classroom.

00--We teach students not subject matter. Teaching is a profession not a supplemental job. If we want students to learn we use professional teaching methods. We teach basic skills and concepts. We cannot expect industry to teach the students reading, writing, citizenship, and communication; therefore we should not expect industry to teach us their activities as they pertain to their own individual circumstance. Working in an industry takes away from our primary concern--teaching students skills and concepts.

02--It would depend on the area of vocational education as to how often a person should return to industry. A BOE teacher is exposed to the new trends almost everyday as he/she works with the employers in setting up training plans for the coop students.

23--What is ideal is seldom practical and never easy. In many areas, usually rural, part-time work is frowned on when those already having a job are concerned. This community feels it is unfair for a teacher to hold a teaching job and take another job in the summer.

36--It would help to require some type of teaching methods course work from those only experienced in an occupation. Likewise, some occupational experience would help certified teachers--part-time (3 months of summer work, for example).

STENOGRAPHIC AND SECRETARIAL

Comments on Occupational Experience

49--I feel a yearly "tour" of areas in related fields would suffice. The major problem here is up-dating teachers on industry's improvements on equipment, methods, etc. Working in the field, if required, is totally unnecessary and would not necessarily fulfill the objectives. Teachers required to return to industry would be competing with their own students for jobs! The areas a teacher may find a job doesn't guarantee that the particular job would up-date the teacher!! Vocational education is on its way "out", I'm sorry to say. State funds are being drastically cut and many schools are refusing to pick up the tab. With this in mind, is it really worth the effort to become and/or maintain the extra expense and hours it requires for a vocational certificate??? I don't believe it is. There are no extra benefits or pay to have a credential. Added requirements would only destroy what we already have.

63--I do not wish to answer #16 since it would imply that I think a teacher must return for experience. Instead, I believe the teacher can keep current of business office practices (and perhaps other areas too) in other ways, such as participation in workshops by National Secretaries' Association, IBM workshops, etc. I do not believe that actually going back into an office and working is going to improve that teacher's ability to teach business occupations.

65--Occupational experience would be much more beneficial if it could be varied and not limited to one occupation. A few hours a week at different occupational areas for refreshment to me is better than months at the same occupation.

66--I do not believe this has to be full time employment. A little work experience in several areas would be more beneficial.

## STENOGRAPHIC AND SECRETARIAL OCCUPATIONS

### Comments on Occupational Experience

03--I feel that work experience is important, but in most instances teachers are closely involved in business situatiors without direct work experience. I am involved with my husband's business and am aware of the requirements the secretaries and clerks in his office should meet in order to get promotions and raises.

09--1. Industry is not anxious to have part-time employees.
2. Teachers are not interested in unimportant jobs that might be available when they are free.
3. Business teachers who enter industry will probably not return to teaching for many reasons.
4. College students are completely turned off by the 2200 hours before they can begin to teach in Colorado. They are going into management and in a few more years business teachers will be hard to find to fill vacancies.
5. Business teachers feel that additional hours on the certificate are superfluous.

15--In the area of Business and Office Education, instructors should be familiar with business practices and requirements at all times.

43--We teach students. We are professional educators. Teaching the basic skills is our job. Industry should take care of specifics. My working for a company does not help my basic knowledge of skills. Teaching students to read, write, be citizens, use basic computation skills, and think through a problem to arrive at a decision should be a teacher's goal.

51--Industry training more important than working in a small do nothing office.

55--Yearly I have upgraded my skills in workshops presented by industry. In the past three years I have learned four magnetic keyboards in workshops. I now teach these.

## GENERAL CLERICAL

### Comments on Occupational Experience

03--Personal experience has shown that in a small community, such as ours, it is almost impossible to obtain a summer or part-time job in business. The new requirement that a vocational office education teacher get so many hours of work experience every five years is really going to be difficult for those living in rural areas to achieve.

I could not question the value of actual experience in teaching any vocational subject. However, some thought should be given to the availability of jobs in Colorado's rural areas before these standards are imposed. People are unwilling to train a teacher (even though they are qualified) for summer employment; and since schools require that a teacher stay until 4 P.M., how can we find part-time work during the year? Our only alternative is to go away for the summer to a city, and those with families cannot or will not leave them.

With the increasing cost of a college education, few of us do not work part-time to get through. New Mexico, for example, has an internship program that gives both college credit and work experience credit. It is coordinated locally through the teacher-training institution and the State Department of Vocational Education.

07--I feel coop program coordinators should not be required to return to industry to update experience because they are there every day observing, instructing, and so forth.

11--Much depends on the teaching situation currently before the teacher. In a school where the students as a whole have a poor foundation in spelling, arithmetic, etc., the teacher is involved in basics, which have not changed over the years. Full-time "industry" experience to update teaching skills is not essential for the teacher who must bring up the level of performance of students deficient in the "basics".

18--My work experience was not in the same area I am currently teaching. The business and office field is so wide and varied that I feel work experience is not a major necessity since the jobs themselves change as well as the variety of teaching assignments. Knowledge in business areas can be gained in ways other than work experience.

22--Teachers are in the working pool group--those of us with families and do not want our wives to work must use our summers to hustle money to make ends meet. I could not benefit from this B & O office related activity in our community: $2.00 per hour versus $5.00-$6.00 per hour -- No Way.

I feel a successful CVA conference with tours to updated facilities and workshops do much more good.

42--I feel seminars about new equipment and new office procedures would be much more beneficial. Sometimes I feel the work requirements are too much. There must be ways of exposing vocational teachers to new innovations in their areas in a shorter amount of time.

GENERAL CLERICAL

Comments on Occupational Experience

34--Occupational experience is fine for a knowledge of how industry works, but in teaching, the three R's are all it comes down to. At every advisory meeting, after the hearts and flowers of educational technicalities have been given due homage, the employers always bring things to a conclusion by saying: ..."but teach 'em to add and spell."

39--To me work experience after beginning teaching is not the best way of keeping up to date. Working in one area of one company gives a very narrow point of view. By visiting several companies and seeing all their areas a much broader view is seen and I feel this will keep me "up to date" much better. I also feel that few office jobs are available in the evenings, therefore necessitating summer work to get experience. I feel very strongly that my summers are mine to do with as I please.

41--Workshops etc., could update on current trends. In my area--the only summer job would be basic typing and I wouldn't learn much on new trends from that!

46--I feel part-time summer employment is very valuable. But how can you take off from teaching and have a full-time job of 3 months or longer?

53--It is difficult to evaluate any number of hours or years of "experience" as such, for it would seem the type or quality of experience would have a very great bearing on its effectiveness. By this it is meant does the work situation have up-to-date equipment or reflect new trends in office management that would provide an enrichment experience. Would it be necessary or desirable to take a leave of absence from ones teaching position to do this is also a question. Should it be decided that this additional occupational experience is of sufficient value to become mandatory, then it might also be asked whether or not those who are administering the vocational programs should not go back into the classroom to get an updating of experience on that level every so many years.

54--Summer-type jobs do not provide the kind of experience we need as teachers.

55--No way can a teacher understand the problems out in the world of work unless they have tried it.

A teacher can be much more helpful to the students if they can tell facts--from experience.

It just can't all come from a book!

56--Occupational experience for summer employment is unrealistic--you never assume responsibilities on a 3 month job that you do on a regular, full-time basis when you are dependent upon that check.

Most vocational teachers I know fudged on their work experience anyway, and it is therefore not valid.

GENERAL CLERICAL

Comments on Occupational Experience

45--I feel that the summer work program should help encourage teachers to work in the summer.

52--1) Major objection is the pay. It does not reflect the ability and experience the educator has. A teacher receiving $15-20 an hour as a teacher is paid $2.50-3.00 an hour as an office secretary, etc. It is not worth the time.
2) Second objection would be a well deserved vacation is missed to work in an office. Therefore, vacations, tours, classes, etc., are missed.
3) Release time from school--Sabbatical--usually are not given to work a year in industry. No credit recognized by the school if you do.
4) I'm sorry to say--the dollars a person earns is a major motivation factor.

61--Everything is moving so fast in the business equipment field, that it is necessary to get "hands on" experiences.

65--Every five years is an appropriate time span, but requiring so many hours every so many years is inappropriate. It might be difficult to secure appropriate, related training stations in the place where you live. Most people aren't willing to go to a larger city for 3 months just to renew a vocational certificate.

B8--Related occupational experience is not the only way possible of maintaining subject matter competence. Specially structured workshops and visitation with observation time is an excellent means of keeping current. These provide a wider exposure than the very narrow experience gained by working in one place for any length of time. Also, well-taught graduate courses in our subject matter area are excellent means of our keeping current with the changes in business. And finally, the experiences we have in our volunteer work in civic and educational organizations and our private investment plans keep us up to date with current practices that can be related to the classroom.

B9--I feel Occupational Experience is very important to a beginning teacher because you must have knowledge of the business world. However, I chose teaching as my career, Not secretarial work. Therefore, I read vocational magazines, books, technical publications, etc.; attend workshops held by vocational educators and businesses; and completed the field experience course offered by UNC last summer. This is an excellent tour of varied Colorado businesses where you see workers in action, the machines used, and find out what standards are set, salary ranges, benefits offered, etc. I feel this course was much more beneficial than sitting in an office all summer. I resent being asked to give up my summer, because after 9 months of high school teaching these days, I feel a change is mandatory with freedom to choose your summer activities.

Please do not require summer vocational experience, or I feel you will lose many qualified, dedicated teachers. I would highly recommend a substitution of a class like the field experience tour offered by UNC or workshops. (On next page)

GENERAL CLERICAL

Comments on Occupational Experience

B9 continued--All of us take the required courses and hours to complete our vocational certificate requirements, but asking for our summer is Too Much. If this is done, I am afraid the vocational certificate will lose its importance, and many will not be renewed. In our district, we receive no benefit (monetary) for having a vocational certificate, we must pay for the vocational courses we take, etc.

08--Occupational experience can be very good depending on the type of job you obtained. Some experience (occupational) is almost worthless.

09--By returning to industry, this could be just like field trips, visitations, etc. I don't think it is necessary that a vocational teacher set down to a typewriter, let's say, and type letters just to return to work.

Exposure is more important than actual on the job experience.

12--I feel that workshops, classes taken during summers or field trips taken to ar[illegible] concerning work experiences is sufficient. If all of us were up-dated every year at our Colorado Vocational workshops on new techniques, equipment and could observe a modern plant and its facilities and perhaps a mini-course on latest equipment we would derive more from that than each one trying to get a job and perhaps working in a local office with outdated equipment.

21--I feel in many instances part-time could be more beneficial than full time. In full time quite often you get into the office routine doing the same things over and over again. (It would have to be planned.) Part time would make the job more flexible and the individual would be able to get involved in a variety of experiences at various businesses.

28--I feel that a visitation type of experience to many work situations would be more valuable than actually working in the same position for the total time.

31--It is more important to spend time getting work experience during the teaching career to keep up to date than to spend a lot of years before teaching. Things change so rapidly, (techniques and industrial) that one must keep up to be able to place our students, train them to fill the needs of the business world, and to be able to succeed on the job.

33--It is imperative that a teacher be knowledgeable of the mechanics of performance, but a job or jobs do not necessarily qualify a teacher to teach. I do not feel that a set number of hours necessarily trains to teach students.

Our job is helping students find out what is expected of them and how to perform in a credible manner . A teacher desiring to train students will be aware of what students need to know and perform by keeping informed either by workshops, exhibits, observations, and/or keeping up with information, materials and equipment. Economics and area make a great deal of difference in job opportunity.

GENERAL CLERICAL

Comments on Occupational Experience

59--I feel occupational experience can be gotten through or in part time work, observation and being acquainted with what is going on in business.

I see nothing to be gained (except an attitude that teaching is easier and pays better and has better hours) by going into work full time. In fact I see many more disadvantages. Its to confining, etc.

68--I feel I do a competent job in placing students on the job, keeping students informed as to new developments, and by teaching them how to be a successful employee.

70--By working, I was able to learn how to do things in an office that I talk about in the classroom. It makes it a lot easier to relate the material to the kids.

00--Necessary for vocational teachers.

Have a healthy respect for visitations to keep up when can't have time for renewed work experience. The experience has to be varied to be worthwhile. I question the value of some work experience.

FILING, MACHINE AND GENERAL CLERICAL

Comments on Occupational Experience

13--I think some experience is helpful--occasional renewal of this experience is also beneficial. I am not sure full-time experience is necessary--part-time would seem adequate.

I think a variety of experiences is more beneficial. Although my experience is limited in terms of full-time, I have been a typesetter, bookkeeper, stock clerk, sales clerk, waitress, secretary and a Kelley Girl.

This variety has been more beneficial to me than time.

32--Can't expect teachers to go back to industry in summer on their own time.

ACCOUNTING AND COMPUTING

Comments on Occupational Experience

06--Amount of experience needed, etc., will depend on the individual.

17--Some questions hardly applicable--considered myself teaching usable skills since substituting at Greeley High as long ago as Fall 1948-1949 (while doing student teaching) -- Full time--January 1949 and 1950. But vocational as such, now was not heard of then in the same light. Worked 3-4 hours daily as junior and senior undergraduate--accounting assistant and receptionist (same as sophomore) Full time employment summers until married.

19--I feel very strongly that if, in fact, related occupational experience is important, then some statewide system should be devised which would require--or at least encourage--school districts to compensate the instructor for the occupational experience. If nothing more, the State Board could at least promote a formula for converting hours of occupational experience to an equivalent number of semester or quarter hours of formal education.

26--Most companies would not give any real responsibility to a teacher working six and eight weeks during the summer. Jobs would, more than likely, be mundane and boring.

I do my own typing, filing, bookkeeping--so I don't need more practice in these areas--I do need to know current practices in business and I learn of these through the advisory board, guest speakers, current films and filmstrips, journals, magazines, and visiting businesses. How much can typing change? or filing? or answering the telephone, etc.?

I chose teaching as a career so I would have summers off with my children. I would highly resent having to work and be denied this time with them.

I would also highly resent working for $2 or $3 an hour. My time is worth more than that to my family.

27--I feel that if a teacher works at least one year--full time in an office--general office--doing a variety of things they will benefit from this in the way he teaches his class. I don't feel going back often to work on a job will make you a better teacher. However, I feel, a teacher must go back periodically to observe how offices are run currently--that is new equipment, not the make-up of doing the work required of an employee as this doesn't change that much from year to year.

29--I have seen teachers with years of varied occupational experience that were very poor teachers because they couldn't control students. Teacher attitude and value systems are the most important qualities to effective learning. Work experience can be a value to this type of teacher. Greater emphasis should be placed on teacher values not certification and work experience, etc.

ACCOUNTING AND COMPUTING

Comments on Occupational Experience

35--In accounting I believe educational background is more important to keep up with relevant changes. I wish we could get vocational credit for non-vocational classes which are directly related to our teaching area!

60--Techniques of teaching are more important to the teacher than vocational experience. Journals and other literature can be used by the teacher to stay current. The ability to teach students does not come from occupational experience related to vocational subject taught.

B5--Since my experience has been on the job training of business machines and I have just installed a mini-computer in my room--I feel that keeping up to date by going into various business places and knowing the latest data process and posting machines is as valuable as being on the job. By the time you set up the media for such a training job as accounts receivable--accounts payable--payroll and aging accounts I do have the background for my field.

10--I believe the vocational certificate should be placed upon ones abilities not the feeling that what some need is best for all. You can learn the field by better means--try getting out and visiting (touring) different businesses and attending workshops in ones area. Teaching should be more professional--stop the micky mousing around--of vocational certificates because some colleges want something.

01--If a teacher has a good job in a school, how is he or she going to get full time experience in industry unless they quit their job. If one has a family to support, how can one take off and work in industry and come back to your job as if nothing has happened?

05--I believe experience should be obtained before teaching and thereafter, teachers should keep current with reading newspapers and magazines and college courses plus contact with business. It becomes paramount that teachers devote more time to understanding of youth. Teaching is in itself a business.

07--I feel that 2 years of employment before teaching is sufficient. Most teachers do an adequate job in keeping up through reading, summer school attendance, and part-time work, or summer employment. Far too many employers take advantage of a situation like this and hire teachers because it is cheap labor and most of the jobs are not even related to their teaching assignments directly. I also feel, that we as vocational teachers are defeating the whole purpose of vocational education. First we train the youngsters for jobs, then we compete with them for these jobs once school is out.

09--Once the experience has been "had", a teacher needs <u>time</u>! to read, visit, explore, research,--a good teacher "teaches", guides and leads. Why do teachers constantly have to prove themselves? How many times does a good swimming teacher have to get wet to prove he can swim?

ACCOUNTING AND COMPUTING

Comments on Occupational Experience

11--I would only recommend (maybe you already do this though) part-time work in related area while attending college--full time in summer.

15--Companies that would accept instructors who want to update their experience should be made available to hiring these instructors.

Update experience should be paid.

16--I personally keep up to date by discussing their work with people, seeing what they do on the job and reading current business periodicals.

I help students with income tax (after refreshing each year). I have a sales tax license so I can purchase auto and other repair parts wholesale for myself and some friends.

I render sales tax returns, etc. Salesmen demonstrate new machines to us before we purchase them at school and we practice on them.

18--I would leave the vocational area if it were a requirement that I return to industry. I feel it is important to have some experience, but I am not willing to go out every few years and acquire new experiences. Industry is a rewarding experience when one is near the top, but to go back into an entry level position for a few months would be a very frustrating experience.

32--If required to work during summers to gain additional occupational experience then in addition to pay from industry our school should pay by advancing us on salary step or I would think twice before I earned additional work experience.

34--Being a coordinator should help (and does help) in keeping current on needs and trends in business.

37--My occupational experience has helped in teaching to a certain extent--particularly in the human relations area. However, I feel additional experience would be a waste of time. Additional skills on new equipment could be gained much faster in one week or two week workshops.

39--Perhaps practicing vocational teachers could somehow be granted release time with teacher pay to return to the business world for refresher experience.

40--A vocational instructor should not be required to return to industry because our school district would not compensate us for our time and effort.

43--It would be much more beneficial touring various offices to see changes than sitting behind a desk doing menial tasks such as typing and filing which is all a temporary worker would do.

ACCOUNTING AND COMPUTING

Comments on Occupational Experience

45--In small communities where jobs are at a premium, Public Relations are hurt when the available jobs are taken over by teachers. Also, because a teacher is involved in business and "an expert", he is called upon to do related work in all organizations to which he belongs--(treasurer and/or secretary).

46--In the business area our textbooks are up-to-date. One really doesn't have to go back into businesses to teach typing, shorthand, or filing. By attending CBEA or CVOEA workshops, teachers are brought up to date on the latest requirements from businesses. Subjects such as general business, law, consumer economics, would profit by a person spending some time in the field.

47--I feel the requirements for additional occupational experience is unrealistic for the following reasons:

1) We generally train students in the basic skills; the employer trains in the specific procedure.
2) If a teacher is "alive and well" he/she has daily contact with businesses and businessmen.
3) Our present economy and unemployment rates create improbability of obtaining worthwhile and meaningful jobs commensurate with teacher training and education.
4) Types of jobs teachers obtain are often meaningless for advanced training.
5) Those of us in year round vocational programs are not allowed time for outside employment.
6) Before long vocational teachers are going to be so involved in meeting re-credentialing requirements, teaching in the classroom will become our secondary goal!!
7) Does student really receive any benefit from teacher's occupational experience?

I do believe some occupational experience should be required for initial certification but the additional requirements are unrealistic!

48--I think on-the-job training should be part of requirements for graduating from college, when teaching in business courses. I mean a straight on-the-job for a period of perhaps a semester or more.

50--"Some" experience is necessary, however, if the teacher remains an interested observer of industry, after some direct experience, I believe he could keep up to date on it. Also, it would depend on the quality of the experience. In other words, a week long field trip of visitation and observation may be as good as a long period of employment in a highly specialized, narrow area.

52--I feel it is very necessary that all vocational teachers have occupational experience. This keeps them apprised and abreast of what the working world is like and they in turn can do a more effective job in the classroom.

ACCOUNTING AND COMPUTING

Comments on Occupational Experience

56--1) A teacher needs to go back into industry to keep on top of recent changes in office techniques, equipment, etc.
2) Working in an office gives a teacher a feeling of confidence when back in the classroom--he/she really knows what he/she is talking about from "real life", not just from a textbook.

57--Occupational experience should not be mandatory until school districts allow sabbatical leave and pay for it during a school year. Experience per se in business occupations does not guarantee an appropriate transfer to the classes to which you are assigned.

58--I feel that related occupational experience can be obtained by keeping in touch with your areas without returning to the industry to work.

61--I take great pride in producing a very fine COE Program. I have excellent rapport with employers and am complimented on the training of my students in skills, personal grooming, attitudes, and work ethnic.

Teaching is innate. Thank you for these concerns.

66--I really feel that the instructor could gain more from workshops or summer courses offering new techniques and equipment operation than getting into a working position for a short duration and probably not in a job of great responsibility because the company usually has the full time, permanent employee in that position.

00--I feel that some occupational experience is essential. However, a <u>good</u> teacher can read professional magazines, attend seminars and training sessions provided by business and get as much job training information as working.

Making regulations concerning work hours at minimum wage in menial jobs is considerably less valuable morale-wise than attendance at good in-service and business-survey programs.

00--A visitation-type program is the best solution, and is the most valuable experience.

00--There are far more important things necessary for good teaching than occupational experience. I doubt that you will agree but occupational experience is not on the top of my list of relative teacher requirements.

## DATA PROCESSING

### Comments on Occupational Experience

0 --My job has been administrative production in Data Processing and instruction of students in Data Processing--both part-time.

11--In this rapidly changing industry, people working full time are hard pressed to keep up with new happenings.

14--In a rapidly changing field such as data processing recent experience is a must. Either release from full time teaching or special summer arrangements are needed: the release being preferable.

20--In the area of computing occupations, the initial occupational experience is of great help. But as for trying to update in industry--it isn't practical nor required. Any DP person worth his credential will keep himself up to date. Just being around the hardware in our installation accomplishes that. I think separate guidelines should be developed for each area at the State level, this blanket, flat rules for each area is not logical.

02--In data processing because of continually changing software and hardware environments a teacher must keep up--industry experience for short periods of time is frustrating both to teacher and employer. Through the use of advisory committees teachers can keep up in this area.

03--In data processing areas maintaining software, setting up curriculum, data base maintenance closely parallels a normal business data processing enterprise.

05--Coop G requires a more diversified work background.

09--The only job that you can get is low jobs and this does not give you the needed experience. You can't get high enough to do you any good in a business, company or corporation.

It would be better if you could just observe business procedures. In this way you can see what is going on in the whole business.

15--If occupational experiences are to be required, the teacher should:
1) expect help in finding jobs for only 3 month periods in the summer (these situations would be hard to find).
2) expect equal pay to what that teacher is currently receiving.
3) get a pay increase for holding a current vocational credential.

CONSUMER HOMEMAKING

Comments Concerning Occupational Experience

01--I feel our greatest purpose is to help a student become a quality, dependable employee and to maintain a job. Even if a student does not continue in the same occupation--he is aware of an employer's expectations of him.

04--My area is strictly consumer homemaking, therefore, as far as work experience goes, I don't use it often. I do believe that it is essential to keep up all of the skills I teach and know.

09--The occupational experience would only be helpful if there were certain requirements placed on the work experience. For example, in Food Service a person may have years of experience but only know how to put food on trays or carhop. The work experience would be of little good then.

Many teachers can run a beautiful program and not have the work experience but they are aware and informed.

As the requirements are now (for hours only and not certain experience) I question the helpfulness of work experiences.

14--Why should we fight so to keep upgraded--hoping for a merit system, and mostly we're just used as fix-it safety pin people!

20--I believe the length and frequency of occupational experience necessary depends upon the service area, and how fast the subject matter is changing.

In the area of homemaking (consumer home economics) an instructor's competence probably is determined more by her personal awareness of the products, techniques, equipment, etc., that are available to her community, than it would be by employment in a related field.

21--Thank you for the opportunity to participate--However, the form proved to be wordy, a duplication of questions and ideas with much room for misinterpretation and implications and at times misleading due to indefinite facts and times. It also fails to take into consideration time or money on the teacher's part to just live--a teacher who is the money source of the family might not be able to take on a full-time waitress or waiter job to be competent of placement for students and feed the family on such a wage. Money is tight in education--no room for supplementing. The survey is at times insulting to the common sense and intelligence of a teacher.

Also, a person is not capable of becoming full or even part-time employed in every job related to a specific area--must rely on public relations briefing, and employer/teacher relations. To do all of this and still be an enthusiastic teacher to encourage learning in a creative way a teacher needs time to prepare, time for himself and his family--there must be a considerate limit and demand. (Much rests on the motivated student.) I love my job and my students but overtime teacher dedication--money and inflation are not hand in hand shown by this survey and in reality, much money and time was spent on this survey and other such programs--is it worthwhile? Again thank you for including me.

CONSUMER HOMEMAKING

Comments Concerning Occupational Experience

22--H.E. is such a broad area of careers to cover, that extensive experience in one area is not really valuable to the regular consumer homemaking or HERO teacher. If they teach solely in, say a food service program, then yes, food service is important and a return to the industry may occasionally be helpful. But for me to return to that industry would still leave me unexperienced in child care, household or hotel maintenance, industrial, clothing, etc.

I do feel that recent classes offered by CSU in Recent Developments in Home Economics (i.e., cake decorating, food service, etc.) were much more beneficial to updating my occupational experience than extensive time in each field. I would like to see more of these short, concise experiences offered in other areas--particularly industrial clothing techniques and power sewing (my school has approximately 10 power machines of which I know very little other than turning them on and off--my food service experiences has been of no help in these areas!)

Courses such as: power sewing or industrial techniques, hotel maintenance, day care operations, etc., would be very helpful in HERO work, even if college credit were not given--offer them in lieu of hours of work experience, prorated of course, and I'm sure you would have an empty class for a long time.

Remember: Courses taught by experts in their field is much more beneficial than the trial and error system of "maybe this is the way other restaurants (or whatever) are run."

I know a lot of my one year of work experience was purely trial and error and pleasing each successive boss--not solely learning the industry.

23--Since my area is consumer homemaking, I do not feel occupational experience is as necessary as it might be in the other areas.

25--I don't believe I need to stop teaching and work a year or 6 months, or whatever in a home ec. area--refresher class, workshops, vocational visitations to industry should be sufficient--I'd resent being forced to leave home, family and take a non-teaching job.

Can only think of a few technical jobs where this would be important.

30--I feel it is important, but it may be difficult for some teachers in some communities to find related job experiences because of unavailability.

32--I consider my experience as a consumer homemaker--a ranch wife. Also kindergarten teacher, I don't feel really qualified to answer questions about industry.

33--I have been a wife, mother, housewife for the past 24 years. I believe these experiences are many times more beneficial than regular work experiences and could be counted as work experience for occupational credentialling.

CONSUMER HOMEMAKING

Comments Concerning Occupational Experience

36--I assume you are aware that "homemaker" is classified by the Department of Labor as an occupation. It is very difficulty to relate the typical definition of industry with the occupation of homemaker.

39--It would only be fair to require the school district to hire the teacher back at the same position and at the same school if the teacher were required to return to industry for update.

I also think effective summer workshops and inservices held during the school year could be as beneficial as working in industry.

49--I feel occupational experience is important! However, I think better guidelines, etc., should be established in order that the experience is truly meaningful to the occupational area.

51--I believe if a occupational teacher is doing their job each year in their program they will have everyday experiences with industry, with on job coop, interviews or counseling with students and employers.

53--In stating 10 years on question 16--I refer to actual working in industry, for I know the inconvenience of making such a change; however, I feel one should keep in direct contact through interviews, visitations, and possibly workshops or refresher courses every year or so.

58--I am against the occupational experience having to be a paid job. Getting a paid job for just three months is difficult--employers don't want to be bothered with you.

59--Occupational experience is invaluable in the teaching situation. It is <u>not</u>, however, easy for fully employed teachers to take the necessary salary cut and loss of increment to return to this job situation. As I see it this is the biggest detriment. Solutions should be investigated.

64--I feel occupational experience is valuable to vocational teachers. But feel part-time jobs will do it. Thus, leaving teacher time to grow in her profession.

65--If one wishes to complete courses in the summer, it is very difficulty to obtain occupational experience.

66--Depends on areas teaching--my work hours aren't much help to me now in the areas that I teach.

67--Experiences gained while working can be invaluable as examples in the classroom. I believe that teachers without this experience can be to reliant on printed material, sometimes out-of-date or incorrect. They may also be considered an invalid source of information by the student, since they have had no personal experiences to back up what they say.

CONSUMER HOMEMAKING

Comments Concerning Occupational Experience

68--I don't believe previous "occupational" experience is important in a consumer homemaking program. We're not "occupational" in the same sense that we're training students in "on-the-job" situations. We do not have an "occupational" program as such. My answers are all based on this fact. I also am not very knowledgeable on "occupational programs" where on-the-job training is a large part.

69--After teaching a full year of school one needs a rest. Also, summer school interferes with working. CVA Convention also.

16--It isn't the time involved, but the quality. Having a variety of work experience is important--for instance, work in food service area, child care, industrial sewing. Having a set number of hours puts a great burden on many occupational instructors. Also, why can't volunteer time be considered--especially in the areas of child care--home services?

15--Why are we not reimbursed tuition wise for the hours that are required for vocational education? Other educators are not required to take these classes and give up their time and energy. Also, why are we not on a different salary schedule, when we are required to give up our summers for work hours and/or credit hours, plus spend time filling out forms and keeping all sorts of records, for vocational education. Many other states are on a separate salary schedule. It would be an incentive.

What are the advantages for being a vocational teacher? If your principal backs your program you will receive the funding for your program. Since I have been in Colorado public schools, it has not been vocational funding that has helped our program, but our building principals. The funds go into a general fund which we never see. I know for a fact other vocational teachers in the district, do not receive adequate funding, without backing of the building principal.

I question how valuable the work hours are, when it comes to relating to students. If you can not relate to students and motivate them, what value is the experience. If one was to fill out all vocational forms (VE 120, student surveys, etc.), taking vocational credits, working to build up work hours...would you really have ample time to plan relevant, meaningful, learning experiences for students and to counsel them with career decisions and personal problems. I guess its a priority as far as how one teacher wants to spend their time and do a good job.

Or maybe an extended contract for vocational teachers would help to accomplish some of the extra work and time involved.

24--Would one have to give up present job to return to industry? I think it is very unnecessary to have to do this sort of thing.

34--I feel in consumer homemaking this emphasis is totally ridiculous, and we have been doing this for years. As for occupational I also feel we are in left field with many of our hours experience, etc. I do feel college courses updating is very important!

CONSUMER HOMEMAKING

Comments Concerning Occupational Experience

44--If one had time I am sure it would be helpful to go back every five years. But due to double credentialling required of vocational teachers this is too much time to ask.

46--I think its possible for an instructor to acquire enough knowledge in some areas of instruction whereby it would not be necessary to have occupational experience.

47--Hours are very hard to obtain when you are actively employed as a full-time teacher. A program at the university level should offer occupational experience related to vocational teaching subject areas if the university is preparing teachers to teach occupational programs.

61--The amount of occupational experience needed, I believe, is determined by the subject area in which one is teaching. Some areas do not call for as frequent up-dating of occupational changes as do other areas. In some cases, such as child care, I believe up-dating ones occupational skills can be done in ways other than actual job experience.

38--Vocational homemaking includes too many areas to have related work experience for all areas!

42--I am a Vocational Consumer Home Ec teacher. I am not required to have industrial experience. The above questions did not apply. I am a consumer now. I have been a homemaker on my own since I was 19. I have worked-hourly paid wages-in home ec occupational areas but again, I do not teach these occupations.

07--Something needs to be done! To get occupational experience, a teacher has to either give up her teaching job or find part-time summer employment. That means giving up summer school and working 12 months. It's too hard! If a teacher keeps up, why require experience?

55--I feel there are many factors which contribute to the effectiveness of a teacher. I also feel that, as a professional, I should have the choice of being able to decide in what area I need refresher courses, or "updating".

As long as I have taught in Colorado, vocational teachers have been dictated to in the areas of which courses to take to renew certificates and how much occupational experience is necessary.

Course and curriculum content vary greatly from county to county in the Denver metropolitan area. Teachers schedules, statewide, I'm sure are different. These differences alone, not to mention individual teacher capabilities and experiences make it ridiculous to standardize occupational experience and courses for certificate renewal.

On the personal side, it is very difficult professionally and financially to leave a teaching job for a certain length of time and go back into industry. I like to teach. I think the occupational experience should be done in related course work, if done at all; or, maybe, in vacation time, but only then if a teacher so chooses.

CONSUMER HOMEMAKING

Comments Conerning Occupational Experience

43--Full-time experience is sometimes hard to obtain especially if coming straight from college. Perhaps part-time should be included as well.

27--In the field of home economics, if you are running a home with a family you are practicing daily the occupation of homemaking which is one of the areas in home economics education.

APPENDIX E

Correspondence

RICHARD D. LAMM, Governor

STATE BOARD FOR COMMUNITY COLLEGES AND OCCUPATIONAL EDUCATION

207 STATE SERVICES BUILDING • 1525 SHERMAN STREET • DENVER, COLORADO 80203

WILLIAM D. WOOLF, Director
OCCUPATIONAL EDUCATION
(303) 892-3011

F. DEAN LILLIE, Director
COMMUNITY COLLEGES
(303) 892-3151

CONGRATULATIONS! You have recently been selected as one of approximately three hundred Colorado vocational teachers to participate in a special research project. This project will be conducted by Colorado State University in cooperation with the State Board for Community Colleges and Occupational Education.

The purpose of this research effort is to measure the value of occupational (industry) experience to vocational teachers. Colorado, like most states, requires all vocationally credentialed teachers to have some industry experience in that occupational area in which they teach. From this research we hope to determine if indeed that experience was of any value to the teacher, if the recency of that experience affects its value, and what length of occupational experience would be most useful. Your valuable imput will help us answer these questions.

You will receive a survey instrument by mail within the next ten days. We ask that you complete that instrument at your earliest convenience and return it to CSU for tabulation. We encourage your most honest and candid responses to all survey questions.

We feel that the product of this research effort will be of notable value to the profession. Your assistance is encouraged and most appreciated.

Sincerely,

Sid Koon
State Supervisor
Vocational Agriculture

John Oades
Principal Investigator

Glen Rask
Project Co-Director

Windol L. Wyatt
Project Co-Director

JO/mh

RICHARD D. LAMM, Governor

STATE BOARD FOR COMMUNITY COLLEGES AND OCCUPATIONAL EDUCATION

207 STATE SERVICES BUILDING • 1525 SHERMAN STREET • DENVER, COLORADO 80203

WILLIAM D. WOOLF, Director
OCCUPATIONAL EDUCATION
(303) 892-3011

F. DEAN LILLIE, Director
COMMUNITY COLLEGES
(303) 892-3131

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Sincerely,

Bonnie Geiger
State Supervisor
Home Economics Education

John Oades
Principal Investigator

Glen Rask
Project Co-Director

Windol L. Wyatt
Project Co-Director

JO/mh

Department of Vocational Education

225

Colorado State University
Fort Collins, Colorado
80523

March 31, 1976

We need your help! We would like you to give one-half hour of your valuable time to the professional improvement of vocational education. We can provide you only a small reward for this valuable effort--please enjoy a cup of fresh, hot coffee while you provide a notable service to our profession.

Several days ago you received an introductory letter from Bonnie Geiger, State Supervisor for Vocational Home Economics Education. In that letter she asked your assistance in completing an occupational experience research effort, being conducted in cooperation with Colorado State University. Enclosed please find your vocational teacher survey instrument, designed to gather data from your specific area of occupational instruction.

The purpose of this project is to measure the value of occupational (industry) experience to Colorado vocational teachers. To accomplish that purpose we are asking that you complete the enclosed survey instrument.

The instrument is divided into three sections, requesting: (1) Descriptive data of your educational and occupational experience, (2) Your beliefs about the value of occupational experience, and (3) Self-evaluation of your ability to perform selected technical subject matter skills. All necessary instructions for completion of each section are printed on the survey instrument. We ask that you not identify yourself on the instrument, and remind you that only your totally honest responses are of value to this research effort. Your individual responses will be held in strictest confidence and will in no way be identified in any output of this research.

Should you have any difficulty in completing the survey please feel free to call John Oades or Glen Rask at CSU (491-6859). Once you have completed the instrument please return it to CSU in the enclosed postage paid envelope.

We wish to thank you for your time and effort. Your valuable input will serve well in moving our profession forward.

Sincerely,

John Oades
Principal Investigator

Glen Rask
Project Director

P.S. If you are busy like most it is easy to put off tasks such as this. Please enjoy that cup of coffee today, and place the completed instrument in return mail.

eaw
Enclosure

Department of Vocational Education

226

Colorado State University
Fort Collins, Colorado
80523

March 31, 1976

We need your help! We would like you to give one-half hour of your valuable time to the professional improvement of vocational education. We can provide you only a small reward for this valuable effort--please enjoy a cup of fresh, hot coffee while you provide a notable service to our profession.

Several days ago you received an introductory letter from Sid Koon, State Supervisor for Vocational Agriculture Education. In that letter he asked your assistance in completing an occupational experience research effort, being conducted in cooperation with Colorado State University. Enclosed please find your vocational teacher survey instrument, designed to gather data from your specific area of occupational instruction.

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We wish to thank you for your time and effort. Your valuable input will serve well in moving our profession forward.

Sincerely,

John Oades
Principal Investigator

Glen Rask
Project Director

P.S. If you are busy like most it is easy to put off tasks such as this. Please enjoy that cup of coffee today, and place the completed instrument in return mail.

eaw
Enclosure

artment of Vocational Education

CSU 227

Colorado State University
Fort Collins, Colorado
80523

We need your help! We would like you to give one-half hour of your valuable time to the professional improvement of vocational education. We can provide you only a small reward for this valuable effort--please enjoy a cup of fresh, hot coffee while you provide a notable service to our profession.

Several days ago you received an introductory letter from Carol Vote, State Supervisor for Vocational Business and Office Education. In that letter she asked your assistance in completing an occupational experience research effort, being conducted in cooperation with Colorado State University. Enclosed please find your vocational teacher survey instrument, designed to gather data from your specific area of occupational instruction.

The purpose of this project is to measure the value of occupational (industry) experience to Colorado vocational teachers. To accomplish that purpose we are asking that you complete the enclosed survey instrument.

The instrument is divided into three sections, requesting: (1) Descriptive data of your educational and occupational experience, (2) Your beliefs about the value of occupational experience, and (3) Self-evaluation of your ability to perform selected technical subject matter skills. All necessary instructions for completion of each section are printed on the survey instrument. We ask that you not identify yourself on the instrument, and remind you that only your totally honest responses are of value to this research effort. Your individual responses will be held in strictest confidence and will in no way be identified in any output of this research.

Should you have any difficulty in completing the survey please feel free to call John Oades or Glen Rask at CSU (491-6859). Once you have completed the instrument please return it to CSU in the enclosed postage paid envelope.

We wish to thank you for your time and effort. Your valuable input will serve well in moving our profession forward.

Sincerely,

John Oades
Principal Investigator

Glen Rask
Project Director

P.S. If you are busy like most it is easy to put off tasks such as this. Please enjoy that cup of coffee today, and place the completed instrument in return mail.

JS/mh
Enclosure

Department of Vocational Education

Colorado State University
Fort Collins, Colorado
80523

Mr. Sid Koon
State Supervisor
Agriculture Education
State Board for Community Colleges
and Occupational Education
207 State Services Bldg.
Denver, CO 80203

Dear Sid:

Please find enclosed copies of letters and survey instrumentation sent to 98 production agriculture and 12 ornamental horticulture teachers. From this survey we hope to draw useful conclusions concerning the value of occupational experience to Colorado Vo-Ag teachers.

I may be able to use some further assistance from you in gaining a good return on the survey instrument. Should that be the case I will be in touch.

Thank you for your assistance in making this research effort possible. I hope that you will find the results useful.

Sincerely,

John Oades
Graduate Assistant

JO/mh

CSU

Department of Vocational Education

**Colorado State University**
Fort Collins, Colorado
80523

April 9, 1976

Dear Vocational Educator:

Some ten days ago you received a questionnaire concerning occupational experience of vocational teachers. We sincerely hope that you will take this opportunity to express, through the questionnaire, your opinions concerning the value of industry experience. Your opinions may well influence future occupational experience requirements for vocational teachers.

Please take the time today to complete and return the questionnaire. If you need assistance or have misplaced the questionnaire please call John Oades or Glen Rask at CSU (491-6859).

Your valuable opinions are most appreciated!

Sincerely,

John Oades
Principal Investigator

JO/mh

CSU

Department of Vocational Education

Colorado State University
Fort Collins, Colorado
80523

May 21, 1976

Dear Vocational Educator:

Are occupational experience requirements for credentialing of concern to you? Could you benefit from release time from your teaching assignment to update or broaden your industry experience? Many vocational teachers have expressed strong feelings about occupational experience, yet no recent concensus of the value of that experience has been gathered.

Some weeks ago you received a questionnaire designed to measure the value of occupational experience. As your response has not yet reached us, we have enclosed a second questionnaire for your use. We encourage you to register your professional opinion on occupational experience, by completing and returning the enclosed questionnaire.

If we can assist you in any way in completing the questionnaire please don't hesitate to call John Oades or Glen Rask at CSU (491-6859).

Please remember that your professional opinions are valuable and essential in answering current concerns about occupational experience requirements. One-half hour is required to complete the questionnaire. Please invest that time and return the completed questionnaire today.

We appreciate your effort!

Professionally,

John Oades

John Oades
Principal Investigator

JO/mh

P.S. Please be certain to return the completed questionnaire before leaving school for the summer. Thank you!

APPENDIX F

Demographic Summary

Summary Tables - Vocational Agriculture

Demographic Information

| Variable | Production Ag. | Horticulture |
|---|---|---|
| Age | 31.11 | 36.82 |
| Yrs. H.S. vocational training | 2.47 | 1.00 |
| Yrs. formal education | 16.72 | 16.09 |
| Years teaching | 8.18 | 8.55 |
| Years vocational teaching | 7.79 | 6.55 |
| Completed teacher education in Colo. | 76.3% | 54.5% |

Occupational Experience

| | | |
|---|---|---|
| Hrs. full time experience prior to teaching | 8380.75 | 12767.90 |
| Hrs. full time experience since teaching | 569.12 | 501.00 |
| Hrs. part time experience since teaching | 1033.11 | 136.00 |
| Hrs. full time experience last five years | 953.60 | 1244.90 |
| Hrs. part time experience last five years | 647.05 | 164.36 |
| Months since last full time experience | 78.48 | 58.27 |
| Technical competence | 4.33 | 3.617 |

All information is reported by mean score.

Occupational Experience Opinion Questions

| Variable Name | Production Ag | Horticulture |
|---|---|---|
| OPSUCCES | 8.82 | 6.06 |
| OPYRS | 3.55 | 1.30 |
| OPRECENT | 6.46 | 3.94 |
| OPOFTEN | 3.73 | 5.93 |

OPSUCCES values are mean scores, on a scale of 1-10, on opinion regarding the importance of occupational experience to program success. (10 being very important.)

OPYRS values are mean years of occupational experience which should be required, in the opinion of the teachers.

OPRECENT values are mean scores, on a scale of 1-10, on opinion regarding the importance of recency of occupational experience.

OPOFTEN values are mean years of lapse time in which occupational experience should be updated, in the opinion of the teachers.

Summary Tables - Business and Office

Demographic Information

| Variable | Steno-Secretarial | Gen. Clerical | Acc't - Computing | Data Processing |
|---|---|---|---|---|
| Age | 35.16 | 38.19 | 38.09 | 38.07 |
| Yrs. H.S. training in vocational area | 1.47 | 1.61 | 1.15 | .67 |
| Yrs. formal education completed | 16.53 | 16.08 | 16.76 | 17.00 |
| Total yrs. teaching | 9.59 | 12.42 | 10.85 | 8.33 |
| Total yrs. teaching in vocational area | 6.04 | 9.39 | 8.46 | 5.47 |
| Completed teacher education in Colorado | 73.5% | 71.2% | 70.4% | 66.7% |

Occupational Experience

| | | | | |
|---|---|---|---|---|
| Hrs. full time experience prior to teaching | 6547.51 | 6021.61 | 7397.50 | 9518.73 |
| Hrs. full time since teaching | 845.25 | 778.24 | 1085.43 | 690.27 |
| Hrs. part time since teaching | 230.33 | 439.29 | 585.87 | 757.33 |
| Hrs. full time last five years | 1080.41 | 477.98 | 949.43 | 1837.00 |
| Hrs. part time last five years | 206.63 | 413.34 | 342.04 | 682.33 |
| Months since last full time experience | 59.92 | 98.54 | 81.65 | 37.47 |

All information is reported as mean scores.

Occupational Experience Questions

| Variable | Steno-Secretarial | General Clerical | Accoun't-Computing | Data Processing |
|---|---|---|---|---|
| OPSUCCES | 7.06 | 6.29 | 6.06 | 7.73 |
| OPYRS | 1.25 | 1.25 | 1.30 | 2.80 |
| OPRECENT | 5.67 | 5.49 | 3.94 | 6.40 |
| OPOFTEN | 5.88 | 4.20 | 5.93 | 4.07 |

OPSUCCES values are mean scores, on a scale of 1-10 on opinion regarding the importance of occupational experience to program success. (10 being very important.)

OPYRS values are mean years of occupational experience which should be required, in the opinion of the teachers.

OPRECENT values are mean scores, on a scale of 1-10, on opinion regarding the importance of recency of occupational experience.

OPOFTEN values are mean years of lapse time in which occupational experience should be updated, in the opinion of the teachers.

Summary Tables - Home Economics

Demographic Information

| Variable | Consumer Home Economics | Child Care | Food Service |
|---|---|---|---|
| Age | 34.64 | 36.10 | 37.29 |
| Yrs. H.S. vocational training | 1.66 | .60 | .57 |
| Yrs. formal education | 17.14 | 16.90 | 15.21 |
| Yrs. teaching | 9.22 | 8.70 | 6.29 |
| Yrs. vocational teaching | 6.63 | 3.90 | 3.21 |
| Completed teacher education in Colo. | 67.8% | 50.00% | 50.00% |

Occupational Experience

| | | | |
|---|---|---|---|
| Hrs. full time experience prior to teaching | 4627.88 | 4291.90 | 16,700.00 |
| Hrs. full time experience since teaching | 520.83 | 2469.50 | 1765.43 |
| Hrs. part time experience since teaching | 380.56 | 71.70 | 1013.50 |
| Hrs. full time experience last five years | 804.42 | 3376.80 | 2879.07 |
| Hrs. part time experience last five years | 479.49 | 39.80 | 1027.07 |
| Months since last full time experience | 50.46 | 30.80 | 25.29 |
| Technical competence | 4.82 | 4.16 | 4.50 |

All information is reported by mean scores.

Occupational Experience Opinion Questions

| Variable Name | Consumer Home Econ. | Child Care | Food Service |
|---|---|---|---|
| OPSUCCES | 5.95 | 9.40 | 9.70 |
| OPYRS | 1.15 | 2.50 | 3.50 |
| OPRECENT | 5.02 | 3.80 | 6.14 |
| OPOFTEN | 4.32 | 3.80 | 3.50 |

OPSUCCES values are mean scores, on a scale of 1-10, on opinion regarding the importance of occupational experience to program success. (10 being very important.)

OPYRS values are mean years of occupational experience which should be required, in the opinion of the teachers.

OPRECENT values are mean scores, on a scale of 1-10, on opinion regarding the importance of recency of occupational experience.

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